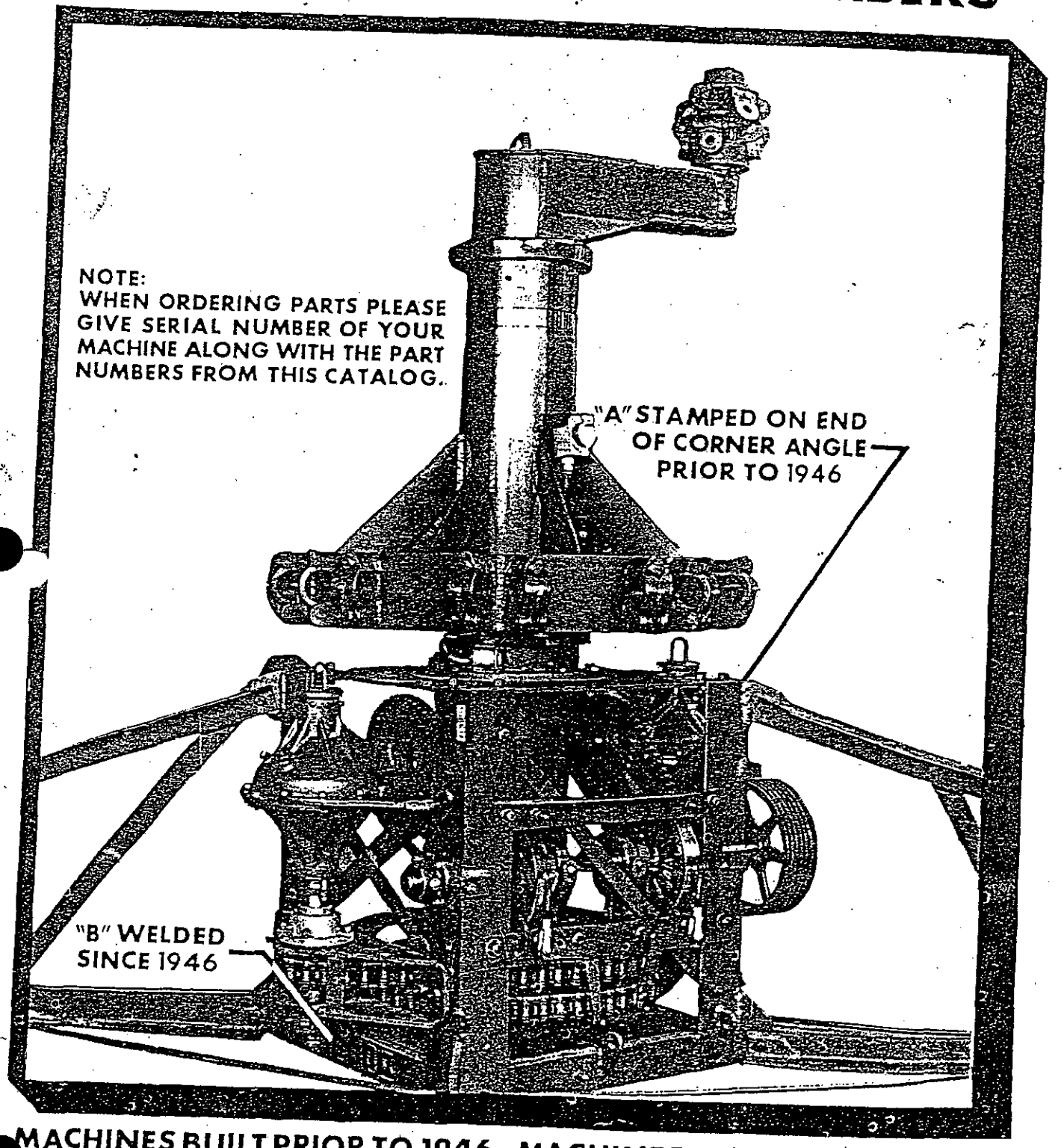
Octopus

Manuf.	Bulletin	Date	Section Found In	Page #	Description
Eyerly	CPSC	8/16/1994	Monster		Failure of cars tubing
Eyerly	CPSC	9/13/1994	Monster		Failure of cars tubing

LOCATION OF SERIAL NUMBERS

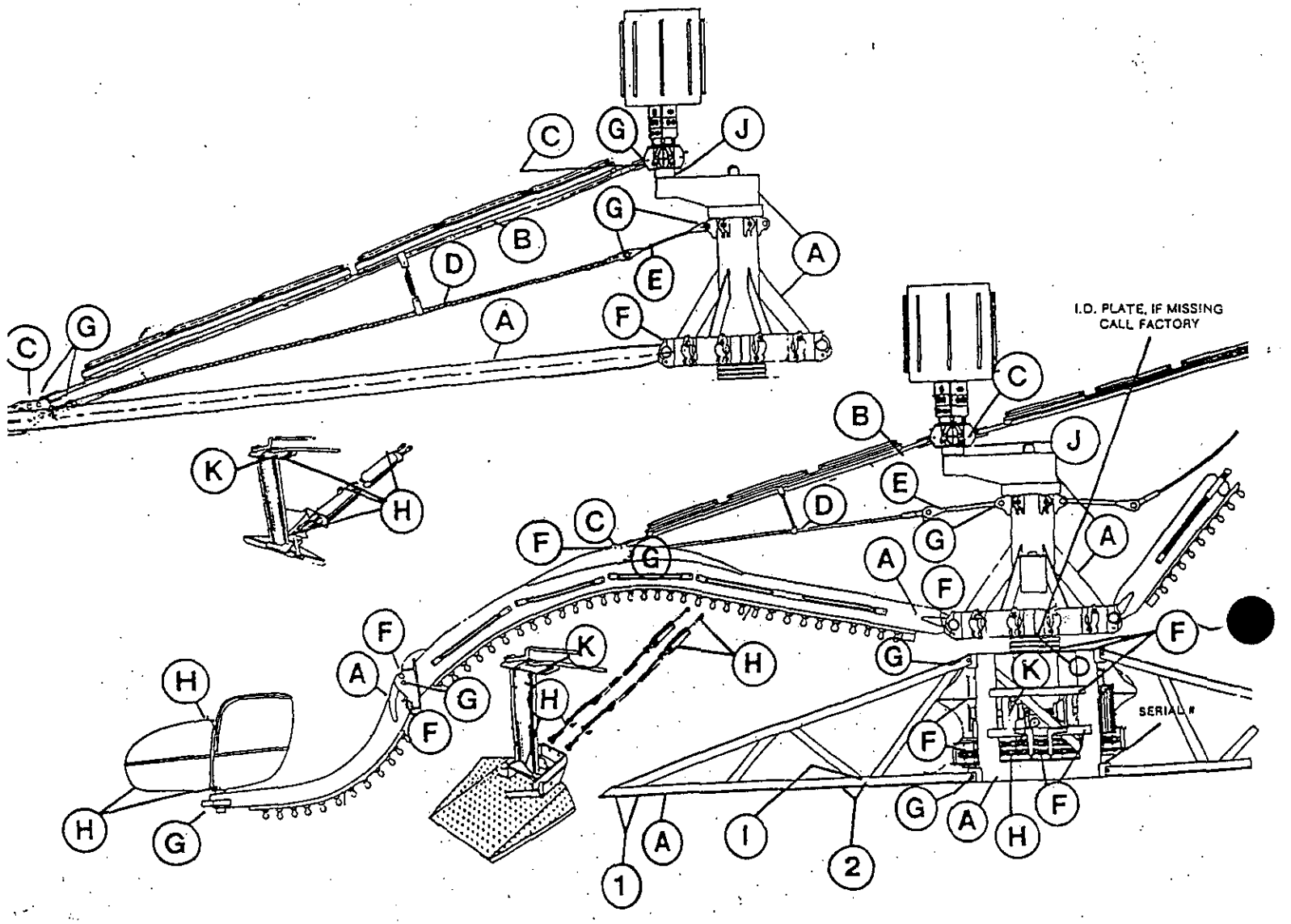


MACHINES BUILT PRIOR TO 1946 HAVE SERIAL NUMBERS 2000 TO 2020 AND 3000 TO 3012. THE SERIAL NUMBER IS STAMPED ON THE END OF A CORNER ANGLE OF THE CAGE. SEE ("A")

MACHINES BUILT DURING AND AFTER 1946 HAVE SERIAL NUMBERS 2500-UP AND 3500-UP. THE SERIAL NUMBER IS WELDED ON THE BOTTOM CHANNEL OF THE CAGE. SEE ("B")

OCTOPUS-SPIT

INSPECTION CHECK LIST



A. Inspect for weld cracks, structural damage.

B. Check support rod, if bent replace rod. (See Spider Bulletin #0-41-76). Inspect pin hole and pin rotating retainer. Replace retainer if pin can rotate.

C. Check swivel block, mono ball for movement:
   1. Swivel block should be replaced if wear exceeds 1/16" (.0625).
   2. Mono ball bolt should be removed, inspected and replaced along with adapter if worn.

D. Check safety cable for condition; broken strands—corrosion; adjustments. Cable should not bear weight of arm when extended. Attaching points should move freely (if cable has been stretched—replace. Factory specifications center line of hole to end of thread 89¼" plus ½" minus ¼").

E. Check safety cable link for twist—replace (also means cable stretched).

F. Check bolts for condition and tightness. If movement is detectable, or bolts damaged, replace or tighten. Check condition of pillow block and block pin, If loose or block damaged—replace.

G. Check pins and fastener. Do not use hair pins in mudsill pins—pins rotate and push keep out. Inspect for hole enlargement and repair.

H. Check for wear in bushing, linkage and joints and hinges.

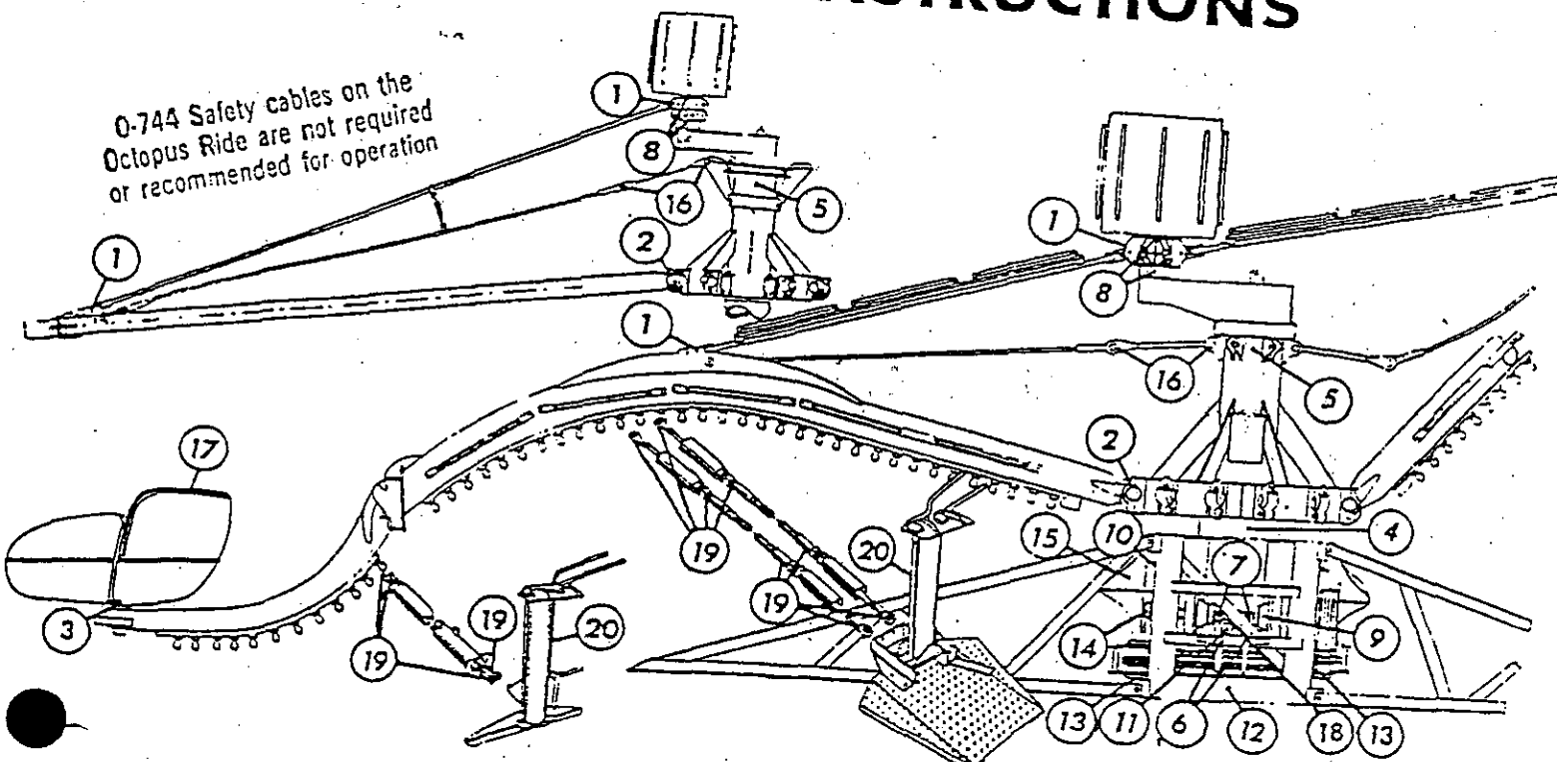
I. Check condition of tie rod for wear due to contct with bearing lock collar, etc.

J. Check Eccentric Hub for play and rough bearings. Tighten or replace as necessary.

K. Check ratchet for condition and control handle lug—check condition of brakes.

L. **General Information:**
   Maximum weight per car 400 lbs. Maximum RPM is 7ccw.
   Blocking:
   Ride center must be floated at all times, evenly distrubute weight on outer end of mudsill at area indicated by 1(one). Quarter blocking located at 2(two) should be finger tight and checked often to prevent weight from transferring to quarter blocks due to settling of outer blocks. NOTE: Blocking shoul be 2 x 6 or better.

LUBRICATION INSTRUCTIONS



NO	NAME OF PART	TYPE OF BEARING	
1	SWIVEL BLOCKS	BRONZE	(A)
2	HINGE BUSHINGS	BRONZE	(A)
3	CAR SPINDLE BUSHINGS	NYLON OR BRONZE	(A)
4	SPLIT HUB BUSHING	BRONZE	(A)
5	ECCENTRIC TUBE BUSHING	BRONZE	(A)
6	CLUTCH THROW-OUT BUSHINGS	BRONZE	(A)
7	CLUTCH SHIFTER RING BEARING	ANTI-FRICTION	(A)
8	ECCENTRIC HUB BEARINGS	ANTI-FRICTION	(B)
9	CLUTCH BOWL BEARINGS	ANTI-FRICTION	(B)
10	GEAR CASE UPPER BEARING	ANTI-FRICTION	(A)

NO	NAME OF PART	TYPE OF BEARING	
11	BASE BEARING (Upper)	ANTI-FRICTION	(A
12	BASE BEARING (Lower)	ANTI-FRICTION	(A
13	DRIVE SHAFT BEARINGS	ANTI-FRICTION	(C
14	COUNTERSHAFT BEARINGS	ANTI-FRICTION	(C
15	GEAR CASE	ANTI-FRICTION	(D
16	SAFETY CABLE ASSEMBLY	STEEL	(A
17	CAR	STEEL	(E
18	CLUTCH ROLLERS & SHAFT	STEEL	(E
19	ROD ENDS	STEEL	(G
20	CONTROL STAND	STEEL	(E

RICATION INTERVAL: THE ABOVE TABLE OF LUBRICATION INTERVALS REFER TO AVERAGE OPERATING CONDITIONS WITH GREASE SEALS INTAC

DAILY OR EVERY EIGHT HOURS DURING HEAVY OPERATIONS:-

IGHTLY EVERY TWO WEEKS:-

VERY THREE MONTHS:-

H EVERY MONTH. CHANGE EVERY YEAR. USE E. P. 90
E UBE.

EEP MOVING PARTS OILED DAILY.

S:

A MULTI-PURPOSE WATER RESISTANT GREASE WITH AN
TED EXTREME PRESSURE ADDATIVE SUCH AS CHEVRON
MOLYGREASE NO. 1 OR MOBIL GREASE SPECIAL IN ALL

KEEP LIGHT RINGS CLEAN AND FREE OF CONTAMINANTS SUC
AS GREASE, OIL ETC.

CHANGE OIL IN HYDRO-SHEAVE EVERY 4000 HOURS OR ONCE
YEAR. USE 10W ABOVE 10 DEGREE F. & 5W BELOW 10 DEGREE
OIL IS TO BE HEAVY DUTY TO MEET A. P. I. SERVICES CLASS M.

LUBRICATE DRIVE CHAINS EVERY TWO WEEKS WITH AN APPRO
ED LUBRICANT SUCH AS ROTANIUM POWER-LUBE NO. 91665, C
EVRON PINION GREASE MS OR EQUIVALENT.

WHEN GREASING SWIVEL BLOCKS, RAISE THE SWEEPS TO R
LIEVE PIN PRESSURE AND ENABLE THE LUBRICANT TO
ELY SURROUND THE SWIVEL PIN.

CLUTCH ADJUSTMENTS

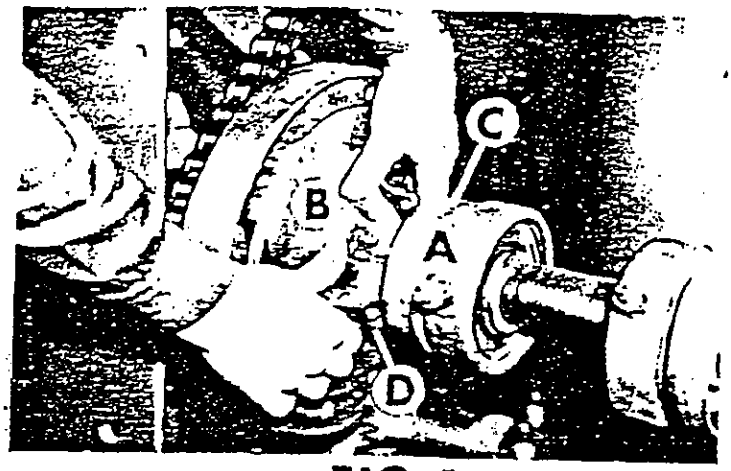


FIG. 1

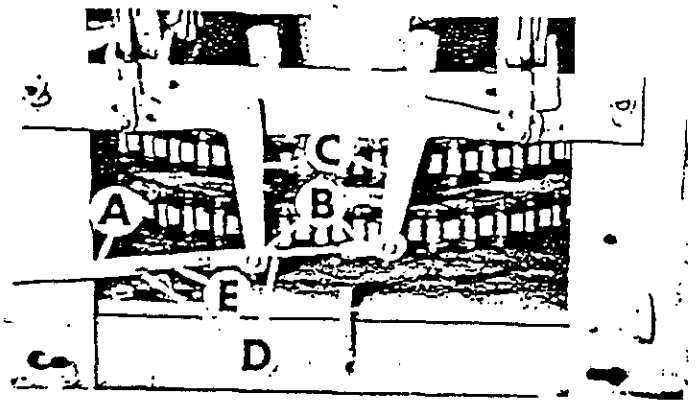


FIG. 2

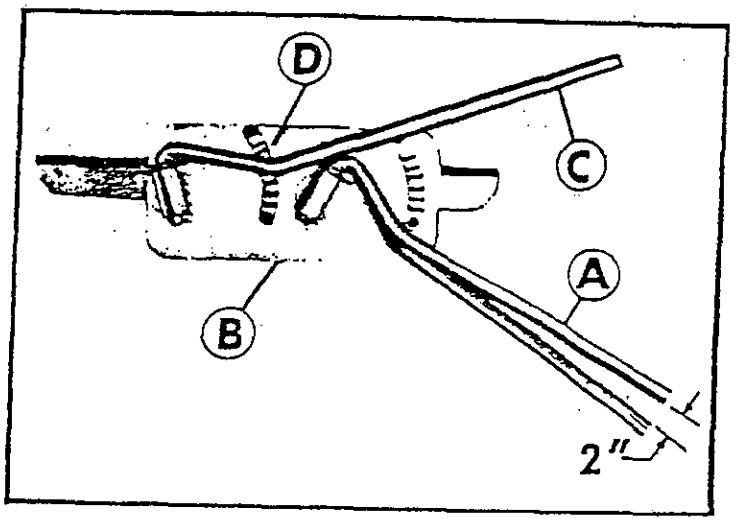


FIG. 3

The clutches are adjusted by depressing the lock lever (A shown in Fig. 1, and rotating the clutch finger assembly (B) clockwise direction, facing the clutch, to tighten and in a cou er-clockwise direction to loosen. They should be adjusted where it requires some leverage to engage them and should and hear a definate snap as the rollers engage the recess ir cam. Be sure the lock lever (A) drops into the slot when adjus ment is completed.

The clutch control rods (A) Fig. 2 are adjusted by re clutch control rod ends (B) from the levers (C) and, wit control handle (A) Fig. 3, on the control stand (B) in a positi about two inches from the extreme back position as shown Fig. 3 and with the clutch engaged, release the lock nuts (D) 2, adjust the clutch control rod end studs (E) in or out until rod ends (B) align with the pins on lever (C). Complete the a justment by mounting the rod ends (B) on the pins on levers (inserting the cotter keys and tightening lock nuts (D).

BRAKE ADJUSTMENTS

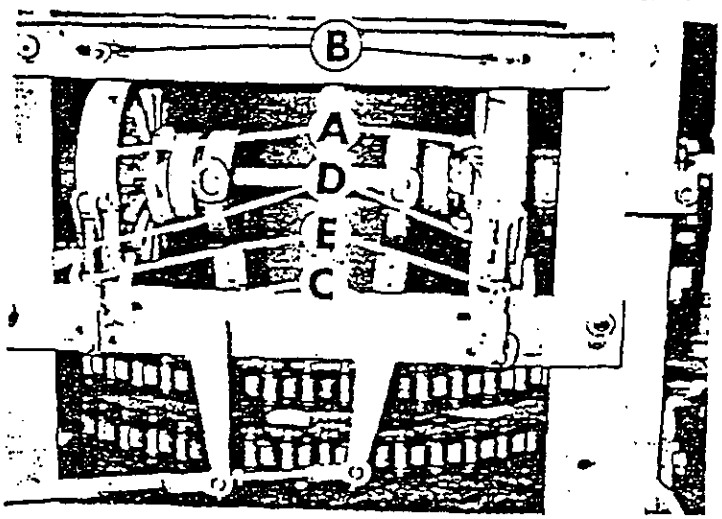


FIG. 4

The brakes (A) Fig. 4 are adjusted by means of the nuts (B). T adjustment should be such that, with the control handle (C) Fig 3 in the center segment of ratchet (D), the brakes are set. A the brakes wear and no further adjustment can be made w nuts (B), further adjustment may be made by disconnecting cle (C) Fig. 4 and unscrewing it on brake rod (D). However, whe this adjustment is employed, never go beyond the point wher less than four or five threads of the brake rod (D) are engag in the clevis (C). When the adjustment is completed, be sure tighten lock nut (E). Replace the brake lining on the b the rivets score the drum.

COUNTERSHAFT SPROCKET ALIGNMENT
(FOR BOLTED DRIVEN SPROCKET (A) FIG. 3)

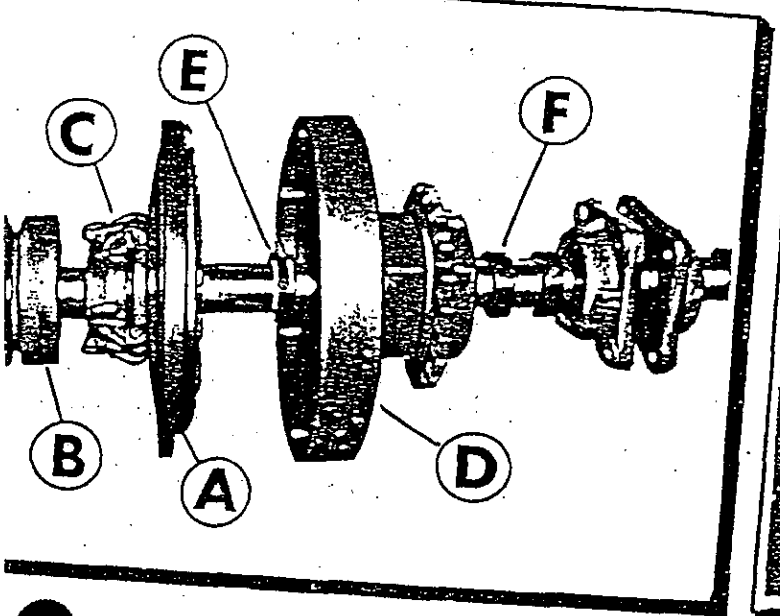


FIG. 1

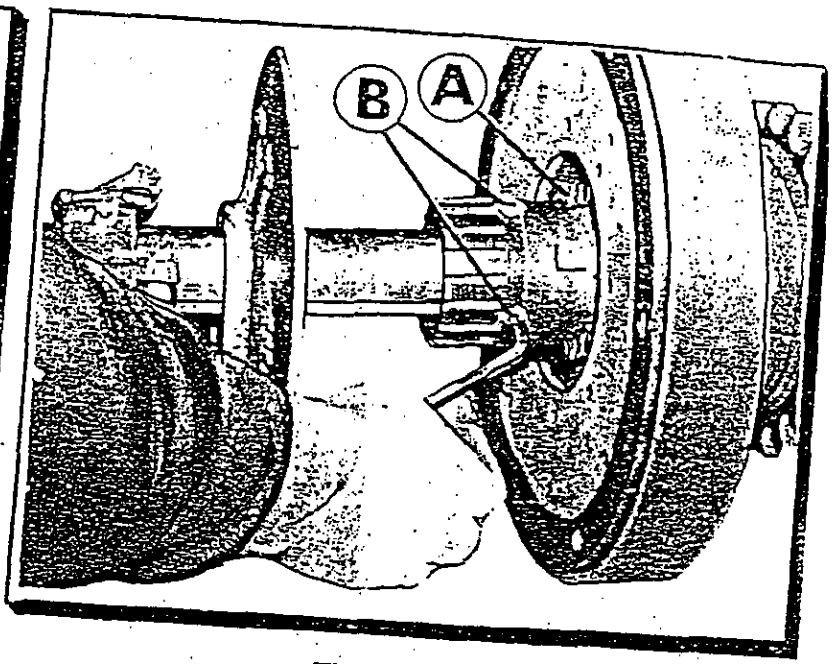


FIG. 2

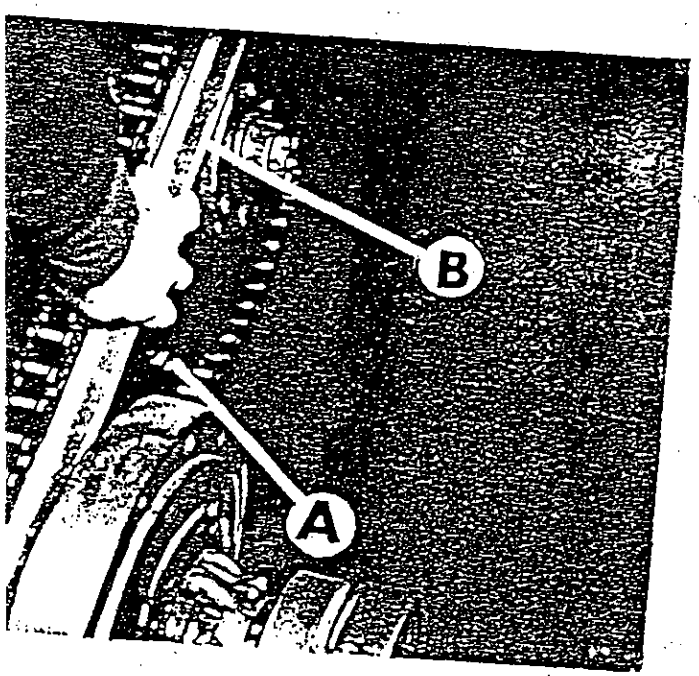


FIG. 3

The alignment of this sprocket is accomplished by moving the clutch on the countershaft. To do this, it is necessary to loosen the set screws which secure the clutch body (A) Fig. 1 to the countershaft. First, slide the shifter assembly (B) Fig. 1 away from the clutch body and remove the finger assembly (C) by unscrewing it from the clutch body. Next, loosen the set screws, see Fig. 2, and slide the clutch body away from the clutch bowl (D) so the inside locking collar (E) Fig. 1 may be removed. This inside collar was not used on some of the early models. The inner and outer collars (E) and (F) Fig. 1 are removed by releasing the set screws and rotating them with a spanner wrench, or with a punch inserted in the hole in the collar.

The clutch bowl may now be moved on the countershaft and aligned with the driven sprocket (A) Fig. 3 by use of a straight edge (B) Fig. 3.

When alignment is completed, replace the locking collars by rotating them on the ends of the bearings until they are tight and securing them with the set screws.

Check the springs (A) Fig. 2 for tension and make sure they are all in place. Re-assemble the clutch body (A) Fig. 1 and secure it to the countershaft by tightening the two set screws (B) Fig. 2. Replace the finger assembly and adjust as per instructions outlined in "CLUTCH ADJUSTMENT"

CHAIN ADJUSTMENTS

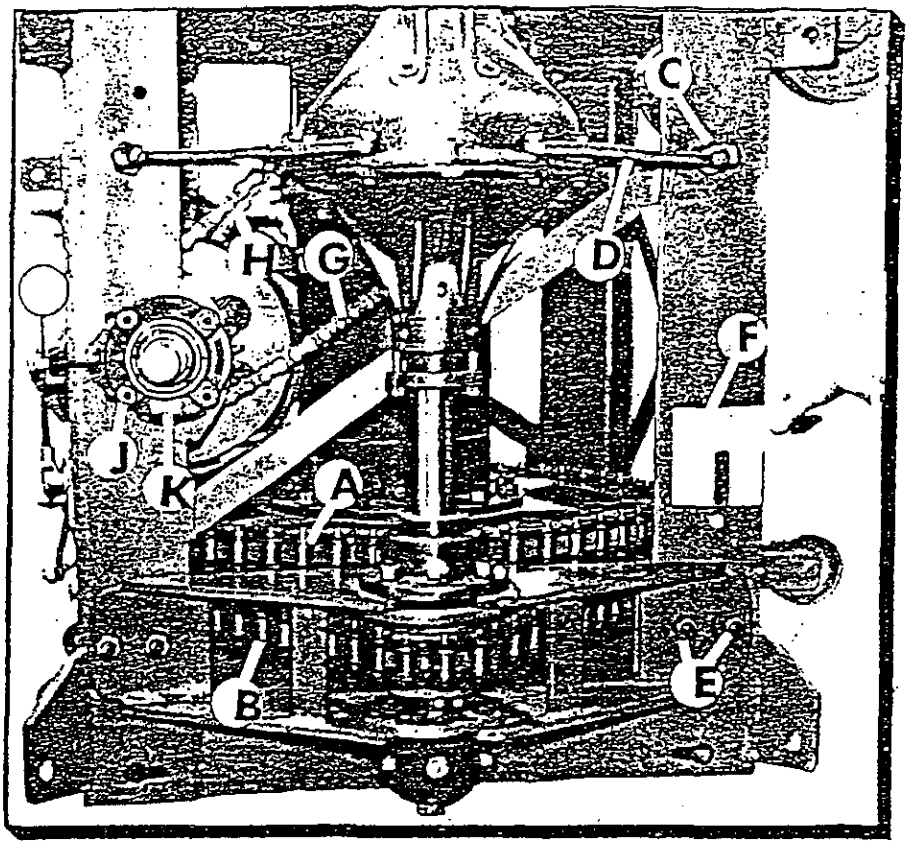


FIG. 1

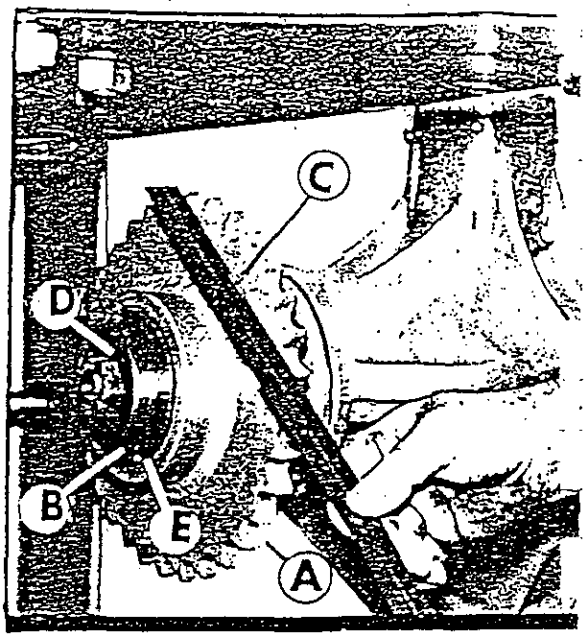
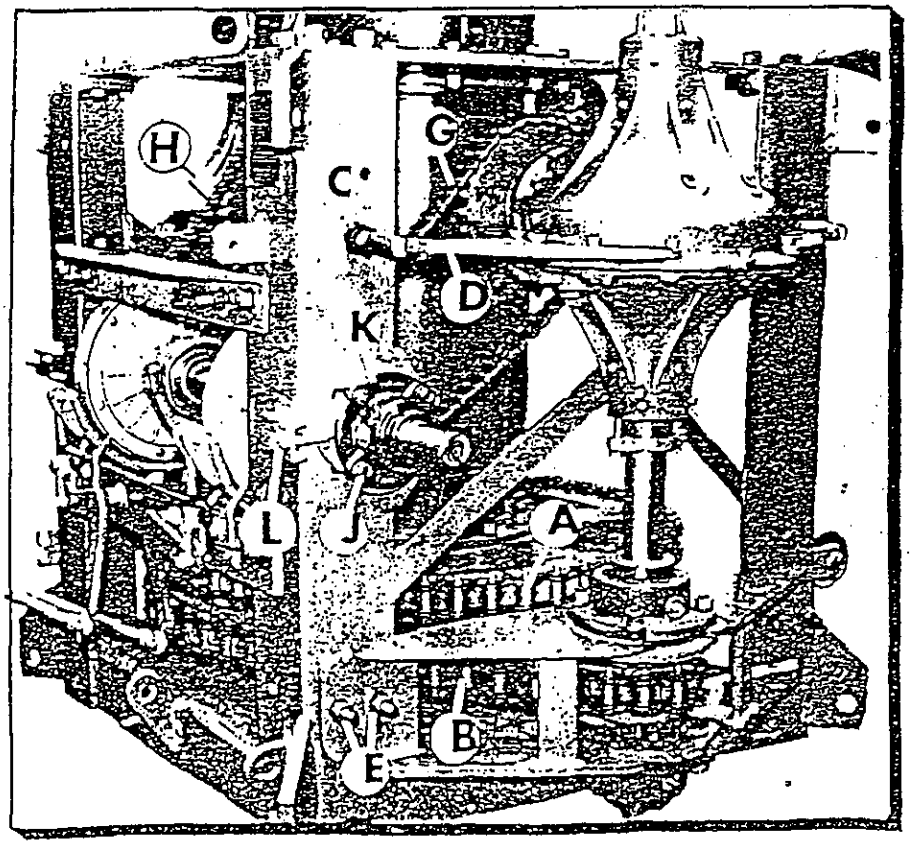


FIG. 3



Chains (A) & (B) Figs. 1 & 2 are a[djusted] by loosening the nuts (C) on the st[ud] gear housing bracket (D) and the nuts on same studs that are on the inside of the co ner angles. Then loosen the nuts (E) on four gear drive support bracket bolts. the bracket (D) away from the corner an[gles] and insert the proper number of spacers (Fig. 1 to remove all slack in the chain then tighten nuts (E). Adjust and tighten (C) until the driving sprocket is in horizon alignment with the driven sprocket, or in v tical alignment with the corner angles.

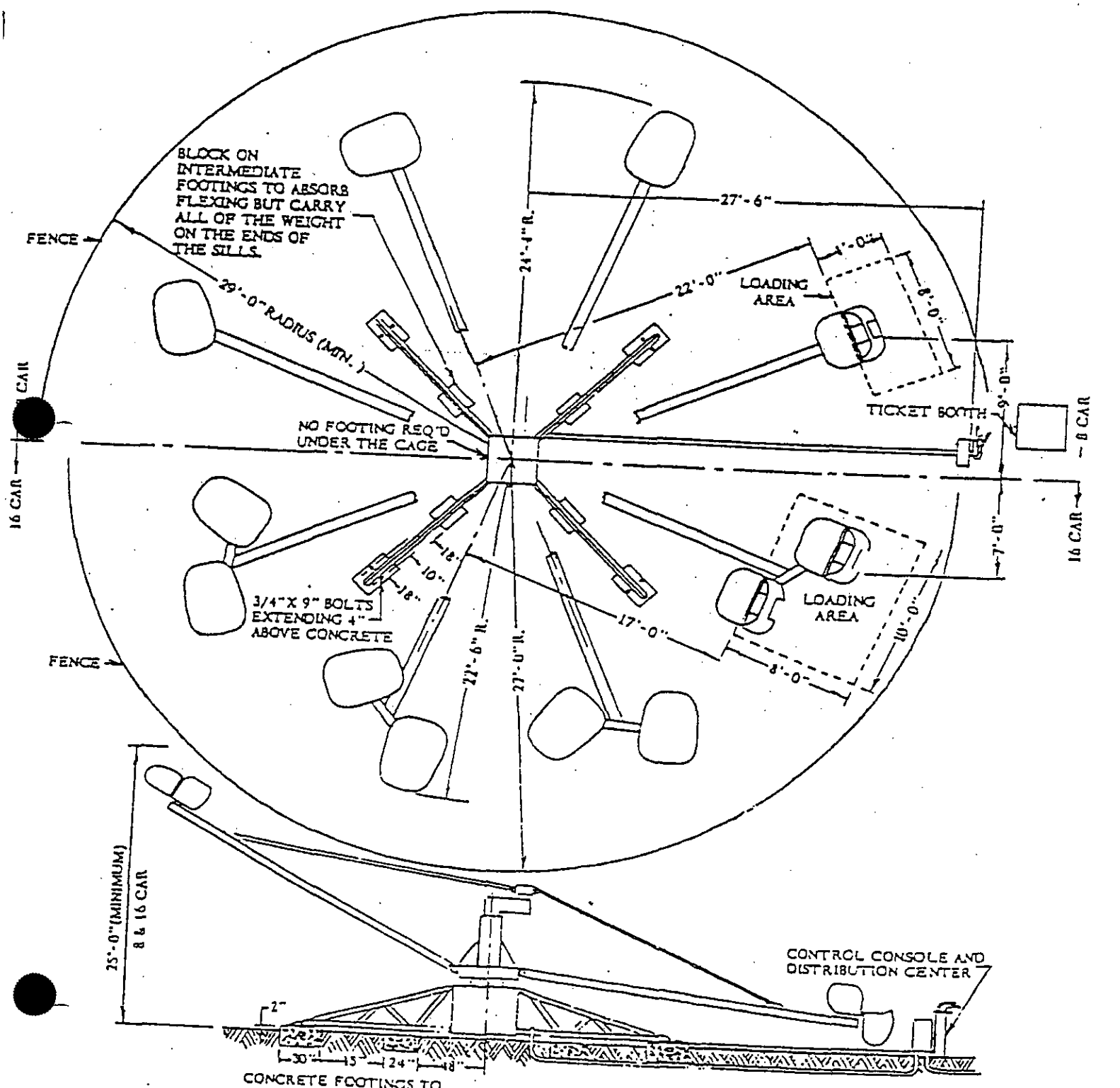
Driving sprocket (A) Fig. 3 is aligned w driven sprocket by loosening taper-lock bu ing (B) and aligning the sprockets by me of the straight edge (C). When alignmen completed, lock taper-lock bushing (B) to (D) by means of set screws (E).

To adjust chains (G) & (h) loosen the n (J) on both countershaft bearings (K) and ghten chains by means of nuts (L). They properly adjusted when they can be depre ed 3/4" with one finger midway between rockets. When adjustment is completed, ti ten nuts (J).

Eyerly AIRCRAFT CO. SALEM, ORE.

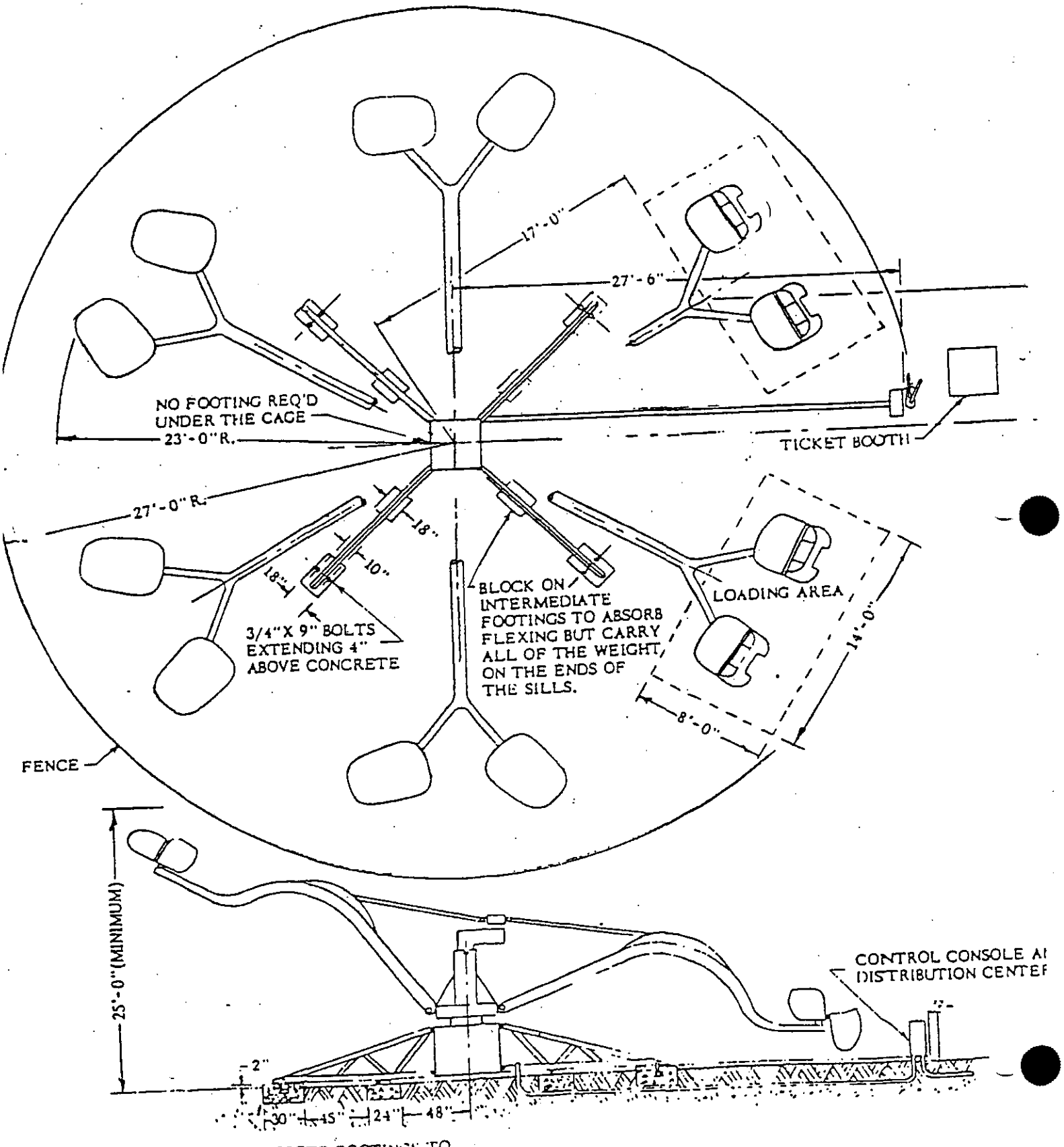
OCTOPUS BASE PLAN

(8 CAR & 16 CAR)

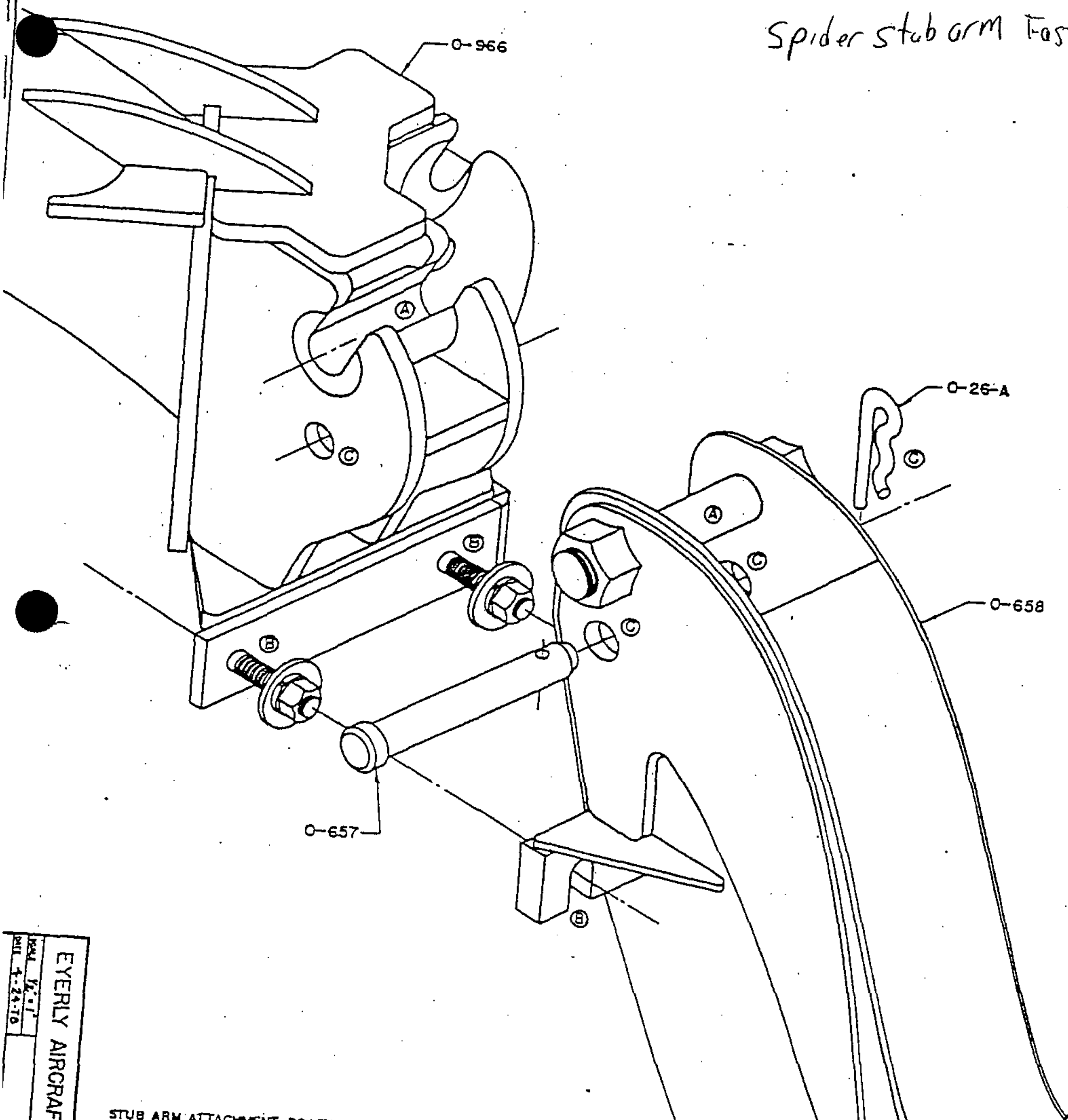


Chenault
AIRCRAFT CO.
SALEM, ORE.

SPIDER BASE PLAN



DWG. NO. 0-43-78
Spider stub arm Fastene



STUB ARM ATTACHMENT POINTS MUST BE SECURED PRIOR TO OPERATION AS FOLLOWS :

POINT Ⓐ — UPPER BOLT : 1 1/4-12 NF X 7" LONG, GRADE 8, 500 FT/LB MIN. TORQUE. (LOCKWASHERS ON POINT A FASTENER IS NOT RECOMMENDED.)

POINT Ⓑ — LOWER BOLT : 5/8-16 NF X 2 1/4" LONG, GRADE 8, 100 FT/LB MIN. TORQUE.

POINT Ⓒ — SAFETY PIN (0-657) : 15/16" X 6 1/4 LONG. HAIR PIN (0-26-A) : 1/4".

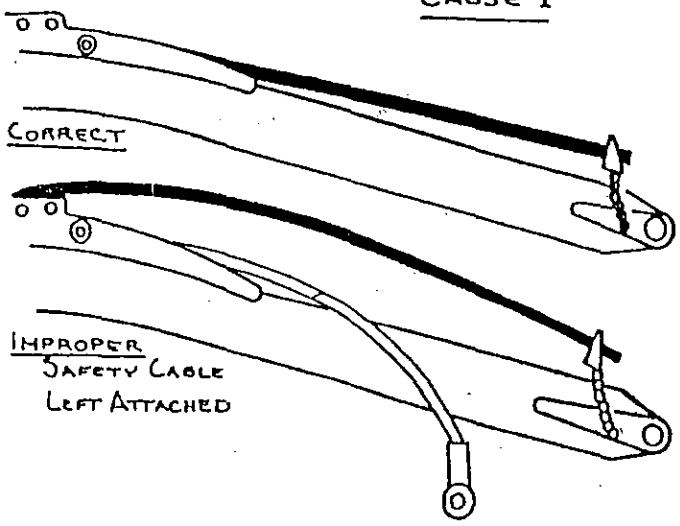
<u>WARNING:</u> IF SAFETY PIN IS REMOVED, OPERATION OF RIDE WITH BOLTS IN LOOSENED CONDITION MAY PERMIT STUB ARM TO DISENGAGE AND FALL.

<u>NOTE:</u> OPERATION OF RIDE WITH 0-657 PIN UNSECURED, AND/OR REMOVED, SHOULD NOT BE PERMITTED.

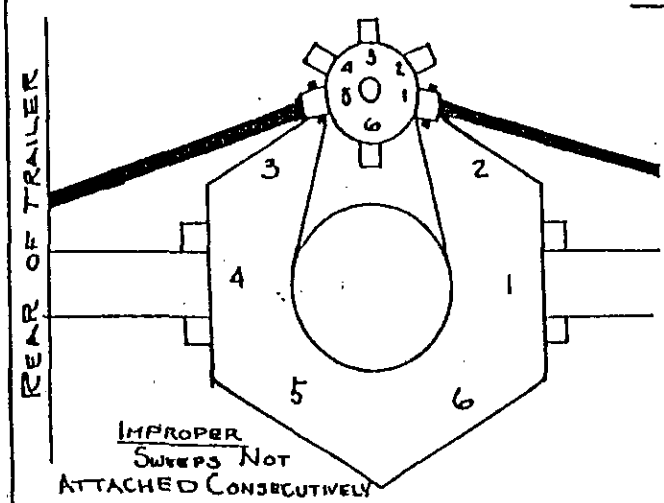
EYERLY AIRCRAFT CO[illegible]NY

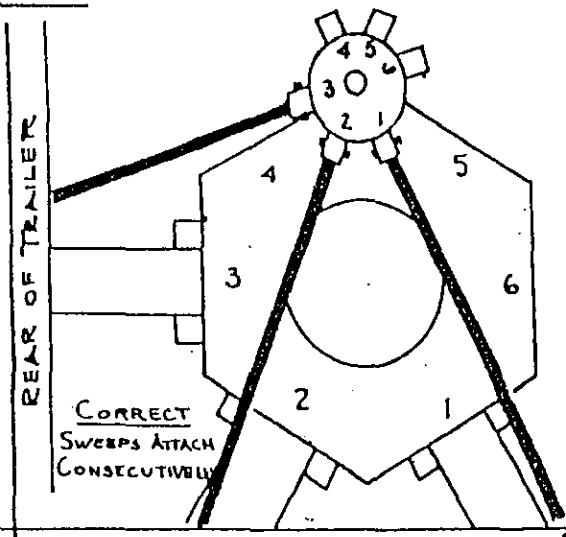
SCALE 1/2" = 1'
DATE 4-24-70
DRAWN [illegible]

CAUSE 1



CAUSE 2





NOTICE!

OPERATION OF THE SPIDER AMUSEMENT RIDE DEVICE WITH A BENT SWEEP SUPPORT ROD WILL CAUSE THE ROD TO BREAK AND WILL PERMIT A SWEEP TO FALL WITHOUT WARNING DURING OPERATION. ALL BENT OR DEFORMED RODS MUST BE REPLACED BEFORE OPERATION. FIELD REPAIRS ARE NOT RECOMMENED OR AUTHORIZED BY THE FACTORY.

THREE COMMON CAUSES OF ROD DEFORMATION OR BENDING ARE:

1.) IMPROPER TRANSPORTING METHOD

IF, DURING TRANSPORTATION, THE SAFETY CABLE AND PIN ARE LEFT ATTACHED TO SWEEP, THE SUPPORT ROD WILL REST ON THE CABLE END AND WILL BEND OR DEFORM AT THAT POINT.

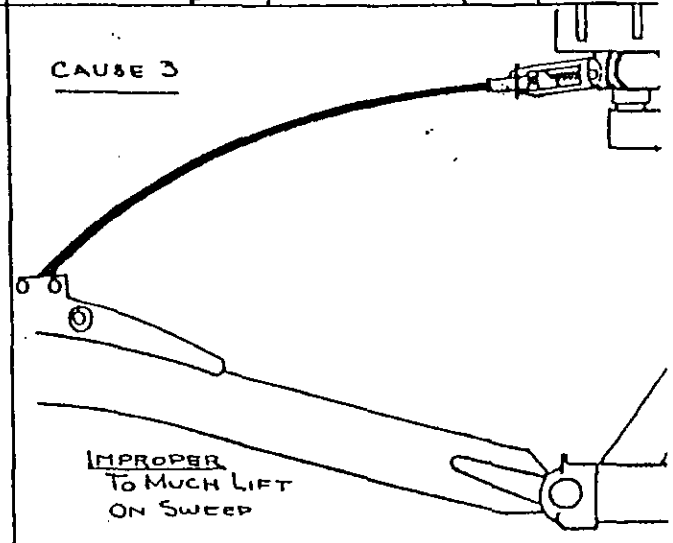
2.) IMPROPER ASSEMBLY METHOD

IF, DURING ASSEMBLY, SWEEPS AND SWEEP RODS ARE NOT ASSEMBLED IN CONSECUTIVE SEQUENCE BEGINNING WITH FIRST SWEEP ATTACHED, A ROD MAY BE ATTACHED TO THE WRONG EAR ON THE ECCENTRIC HUB. UPON FUTHER ROTATION THE SWEEP ROD WILL BEND OR DEFORM AT ATTACHING POINT. DURING ASSEMBLY FROM TRAILER ECCENTRIC CRANK MUST BE POSITIONED PARALLEL TO REAR OF TRAILER POINTED LEFT (PASSENGER SIDE), ECCENTRIC CRANK IS NOT TO BE ROTATED DURING ASSEMBLY OF SWEEPS.

3.) CARELESS DISASSEMBLY

IF, DURING DISASSEMBLY, SWEEP IS LIFTED BY HOIST BEYOND ROD DISCONNECT POINT FROM ECCENTRIC HUB ROD WILL LOCK AGAINST ECCENTRIC HUB ATTACHMENT AND WILL BEND OR DEFORM.

CAUSE 3



SWEEP SUPPORT ROD BULLETIN

DRAWN BY:	SCALE:	NO. REQ'D.:	MATERIAL:
TMcQ			
DATE: 9-25-78	NEXT ASSY.:	BDG. NO.: 0-41-76	EFF. W/SN:
		BDD. BY NO.:	EFF. W/SN:

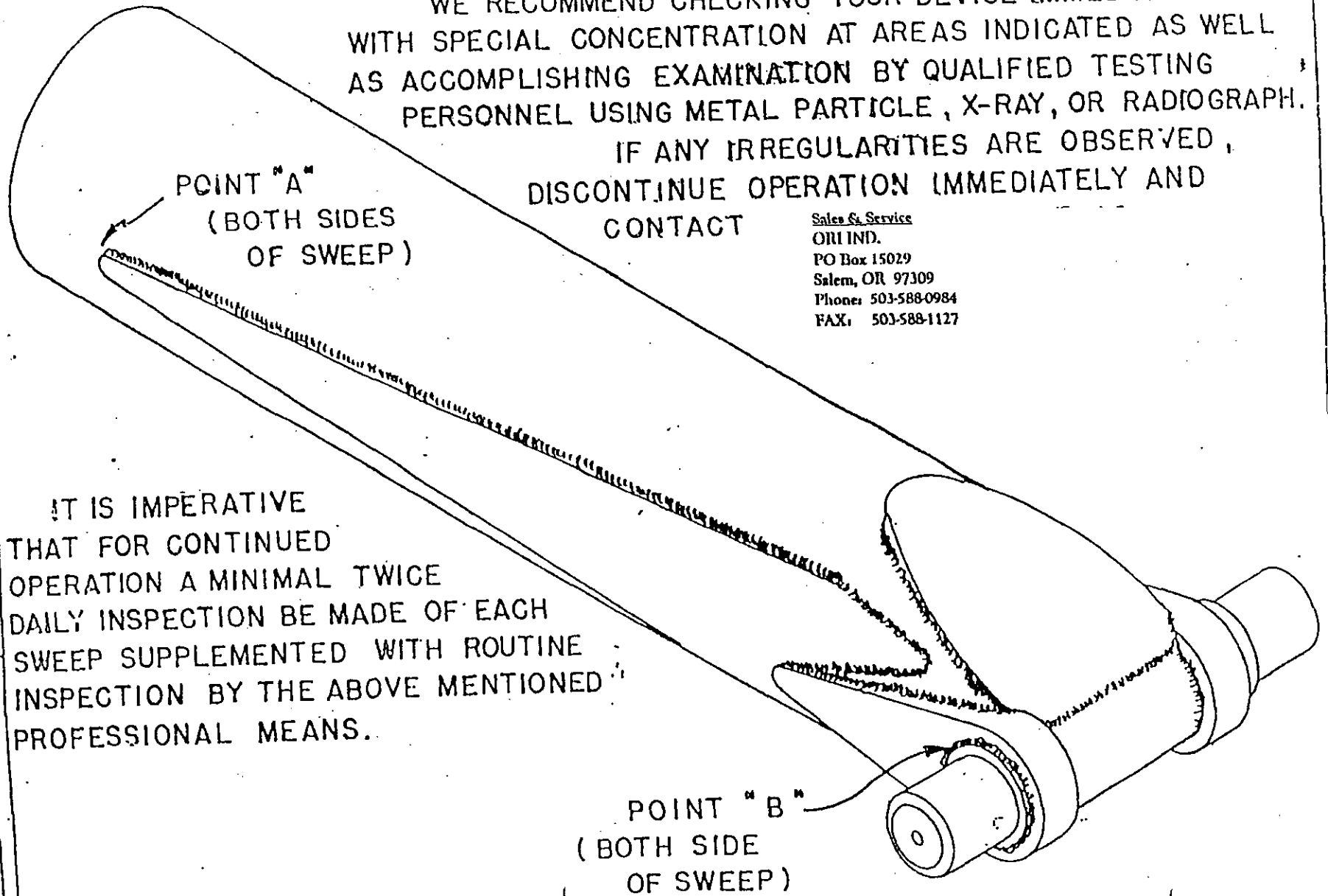
CHANCE RIDES

Drg. No. 0-45/10-7

WE HAVE BEEN ADVISED OF A CURVED SWEEP FAILURE WITH INDICATION OF ORIGINAL BREAKING AT POINT "A" AS SHOWN BELOW. ALSO, SOME HAIRLINE CRACKS HAVE BEEN REPORTED IN THE AREA OF ATTACHMENT OF THE SWEEP SPINDLE TO THE REINFORCING TEARDROP GUSSETS DESIGNATED AS POINT "B" BELOW.

WE RECOMMEND CHECKING YOUR DEVICE IMMEDIATELY WITH SPECIAL CONCENTRATION AT AREAS INDICATED AS WELL AS ACCOMPLISHING EXAMINATION BY QUALIFIED TESTING PERSONNEL USING METAL PARTICLE, X-RAY, OR RADIOGRAPH. IF ANY IRREGULARITIES ARE OBSERVED, DISCONTINUE OPERATION IMMEDIATELY AND CONTACT

Sales & Service
ORI IND.
PO Box 15029
Salem, OR 97309
Phone: 503-588-0984
FAX: 503-588-1127



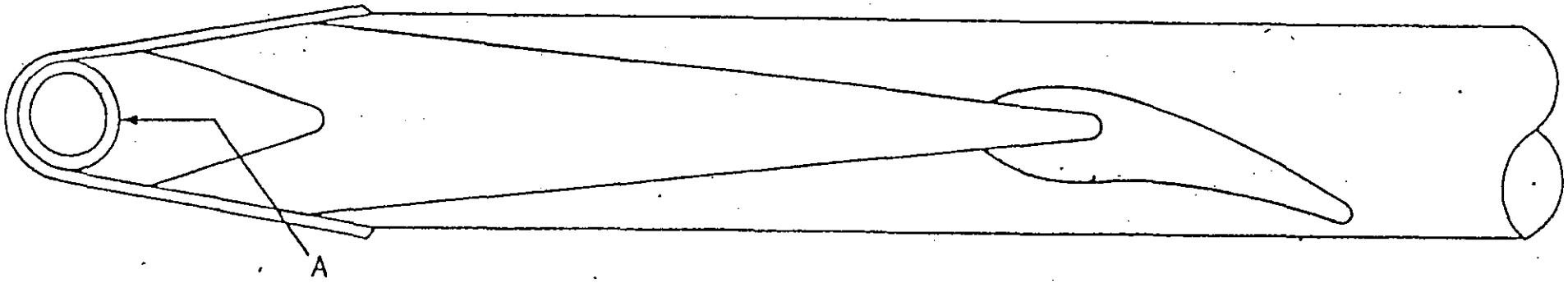
IT IS IMPERATIVE THAT FOR CONTINUED OPERATION A MINIMAL TWICE DAILY INSPECTION BE MADE OF EACH SWEEP SUPPLEMENTED WITH ROUTINE INSPECTION BY THE ABOVE MENTIONED PROFESSIONAL MEANS.

DRAWN BY: NEAL | SCALE: NONE | NO. REQ'D: ~ | MATERIAL: ~
DATE: 3-30-74 | NEXT ASSY: ~ | SOS. NO.: | SOD. BY NO.:

SPIDER

BULLETIN O-39-74

NOTICE: TO ALL OWNERS OF "SPIDER"
AMUSEMENT RIDE DEVICES MANUFACTURED BY
EYERLY AIRCRAFT COMPANY.



WE HAVE LEARNED OF A SWEEP FAILURE ON A SPIDER DEVICE
MANUFACTURED BY EYERLY AIRCRAFT COMPANY.
THE FAILURE OCCURED AT THE HINGE PIN WELDMENT. Note: Fig. "A"
AS A PUBLIC SERVICE TO THE INDUSTRY, JVI IS ISSUING BULLETIN NO.8-88-1,
RELATIVE TO THE EYERLY AIRCRAFT CO. 0-619 SWEEP WITH THE 16" HINGE PIN.
IT IS ADVISED THAT YOU IMMEDIATELY INSPECT THE SWEEPS
FOR FAILURE IN THIS AREA, (BOTH SIDES). IF CRACKING IS FOUND, NOTE LOCATION
AND LENGTH, AND ADVISE ORI IND. @ (503) 588-0984, IMMEDIATELY

SPIDER SWEEP 0619				JV INDUSTRIES Inc.
Dr. By JPM				BULLETIN NO.
Date 8-88		S.D.D. By		8-88-1
		S.D.S.		

1 of 1

WE HAVE BEEN ADVISED OF SOM. HAIRLINE CRACKS IN THE WELDMENT OF THE SPINDLE REINFORCING TEARDROP GUSSET TO THE SWEEP TUBE, DESIGNATED AS POINT "A" BELOW.

WE RECOMMEND CHECKING YOUR DEVICE IMMEDIATELY WITH SPECIAL CONCENTRATION AT AREA INDICATED AS WELL AS ACCOMPLISHING EXAMINATION BY QUALIFIED TESTING PERSONNEL USING METAL PARTICLE, X-RAY, OR RADIOGRAPH.

IF ANY IRREGULARITIES ARE OBSERVED, DISCONTINUE OPERATION IMMEDIATELY AND CONTACT:

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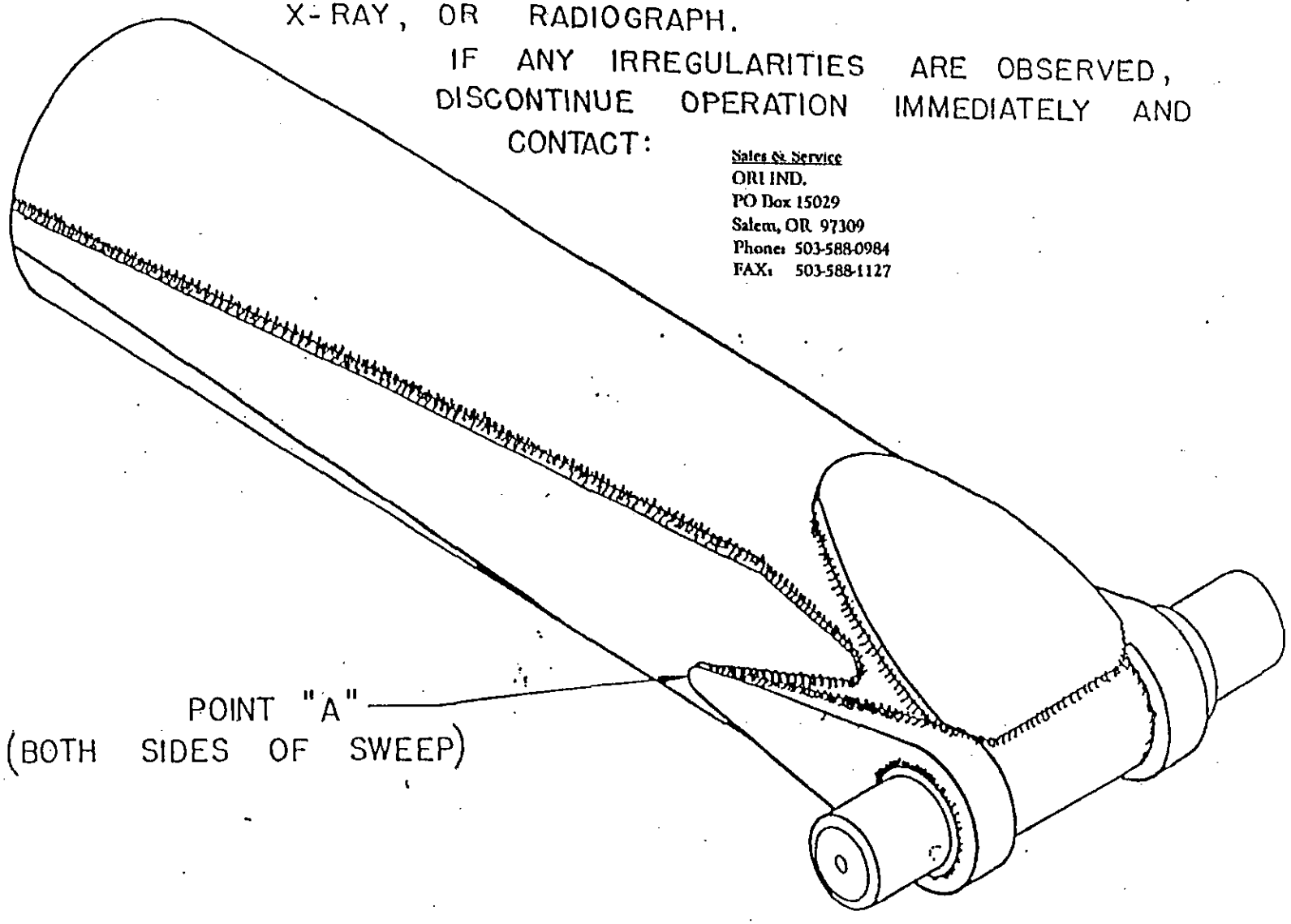
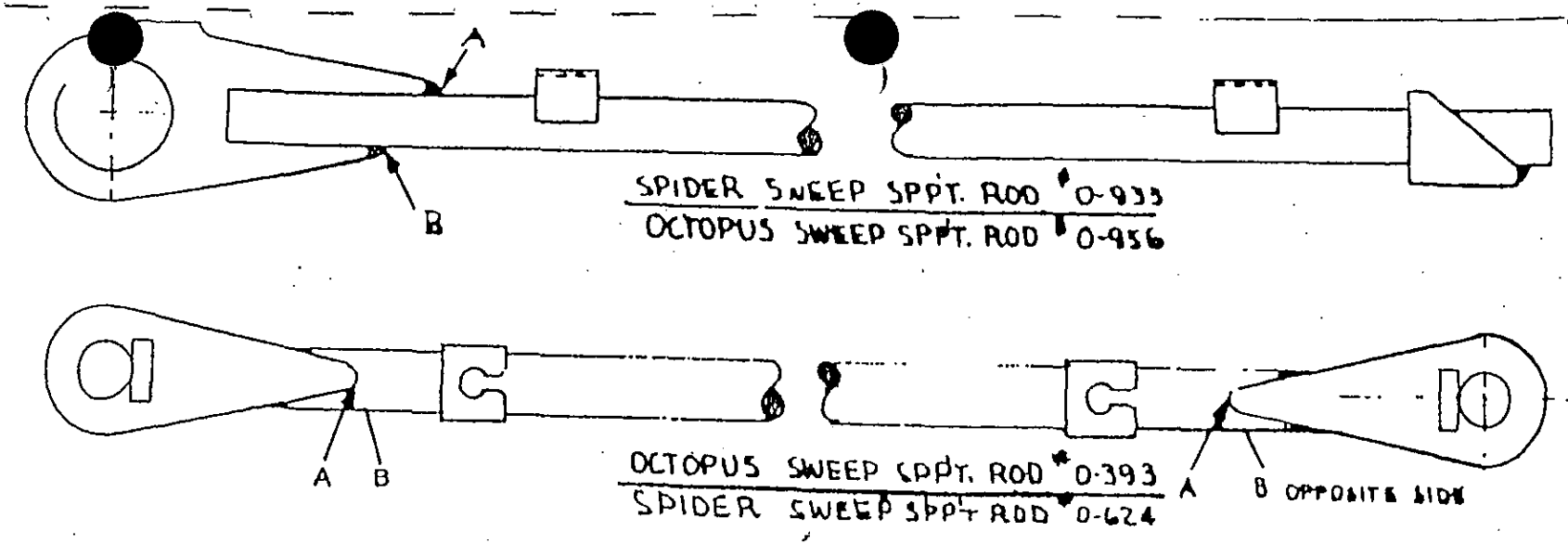


DATE: 3 JAN 82 | DRAWN BY: DLD | SCALE: NONE | NO. REQ'D.: — | MATERIAL: —
NEXT ASSY.: — | SDS. NO.: — | SDS. REV. NO.: —

SPIDER

BULLETIN 0-47-82



OPERATION OF THE SPIDER OR OCTOPUS AMUSEMENT RIDE WITH DEFECTIVE SWEEP SUPPORT RODS, (CRACKED, BENT OR OTHERWISE DEFORMED) WILL RESULT IN FAILURE OF THE ROD AND WILL PERMIT THE SWEEP TO FALL WITHOUT WARNING DURING OPERATION. ALL GREASE, GRIME AND DIRT SHOULD BE REMOVED FROM AREAS "A" AND "B" SHOWN, AND N.D.T. TESTED, USING MAGNETIC PARTICAL PROCESS. ALL CRACKED OR OTHERWISE DEFECTIVE RODS MUST BE REPLACED BEFORE OPERATION. FIELD REPAIRS ARE NOT RECOMMENDED. IT IS RECOMMENDED THAT A VISUAL CHECK BE MADE EACH SET-UP OR EVERY SEVEN DAYS, SPECIFICALLY IN AREA SHOWN.

ALL RODS SHOULD BE CHECKED EVERY 200 HOURS OF OPERATION USING THE ABOVE MAGNETIC PARTICAL METHOD. ANY DEFECTIVE ROD FOUND SHOULD BE REPLACED WITH A NEW FACTORY ROD ONLY.

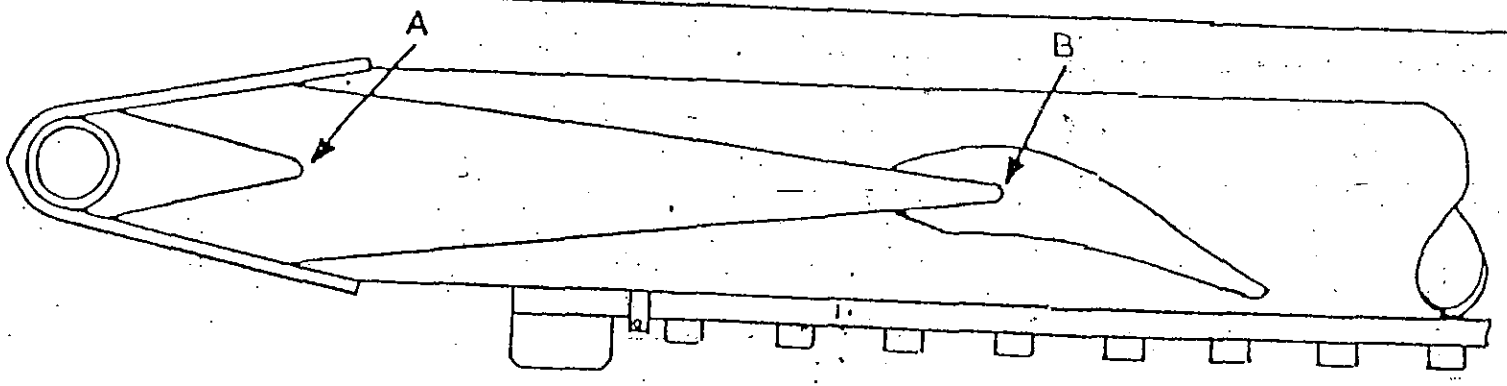
THIS BULLETIN SHOULD BE KEPT WITH ALL PERTINENT RIDE DOCUMENTS.

Dwg. No. 0-48-86

Octo./Spider Sweep Support Rod Bulletin

DRAWN BY: | SCALE: | NO. REQ'D.: | MATERIAL: | SOS. NO.: | SOD. BY NO.:

DATE: | NEXT ASSY.:



WE HAVE BEEN ADVISED OF SOME HAIRLINE CRACKS THAT HAVE DEVELOPED IN THE WELDMENTS AT POINTS 'A' AND 'B' (BOTH SIDES) OF THE SPIDER SWEEP, PART 0-619. IT IS IMPERATIVE THESE POINTS BE THOROUGHLY INSPECTED IMMEDIATELY UPON RECEIPT OF THIS BULLETIN. IT IS RECOMMENDED THE INSPECTION BE MADE BY QUALIFIED AND APPROVED TESTING PERSONNEL, EMPLOYING MAGNETIC PARTICLE, X-RAY, OR RADIOGRAPH PROCEDURES. IF THE INSPECTION REVEALS ANY IRREGULARITIES, OPERATION OF THE DEVICE SHOULD BE DISCONTINUED IMMEDIATELY. REPAIR IS TO BE DONE BY A QUALIFIED FACILITY KNOWLEDGEABLE IN APPROVED METHODS OF A.W.S. - A.S.M.E. STANDARDS.

IT IS RECOMMENDED THAT A VISUAL INSPECTION BE MADE AT EACH SET-UP OR EVERY SEVEN DAYS OF OPERATION, SPECIFICALLY IN AREAS NOTED.

THIS BULLETIN SHOULD BE KEPT WITH ALL PERTINENT RIDE DOCUMENTS.

Dra. No. O 49 86

Spider Sweep #0-619 Bulletin

MATERIAL:

NO. REQ'D.:

DWG. NO.:

SCALE:

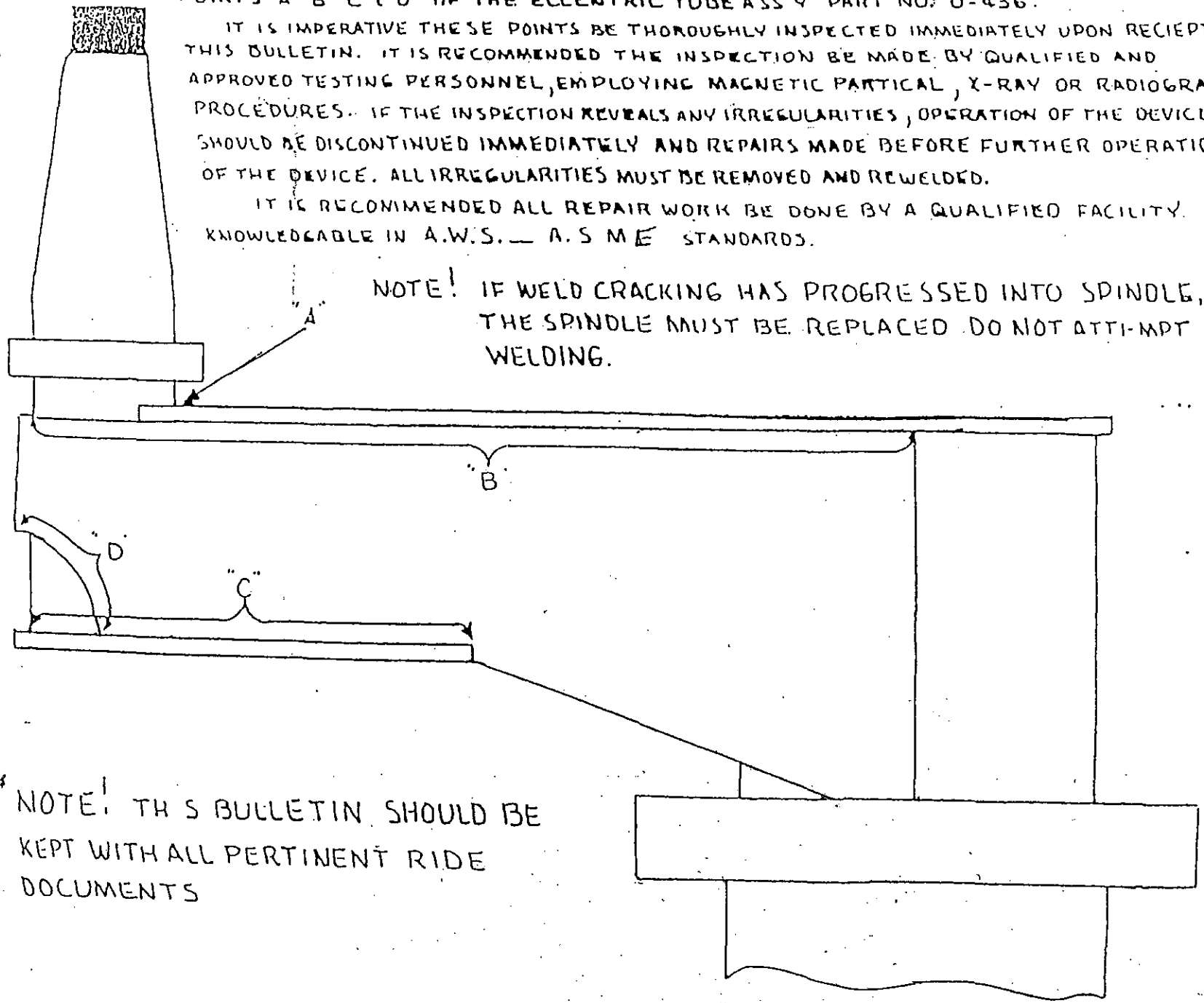
NEXT ASSY.:

WE HAVE BEEN ADVISED OF SOME HAIRLINE CRACKS AT HAVE DEVELOPED IN THE WELDMENTS AT POINTS "A B C & D" OF THE ECCENTRIC TUBE ASS'Y PART NO. 0-436.

IT IS IMPERATIVE THESE POINTS BE THOROUGHLY INSPECTED IMMEDIATELY UPON RECIEPT OF THIS BULLETIN. IT IS RECOMMENDED THE INSPECTION BE MADE BY QUALIFIED AND APPROVED TESTING PERSONNEL, EMPLOYING MAGNETIC PARTICAL, X-RAY OR RADIOGRAPH PROCEDURES. IF THE INSPECTION REVEALS ANY IRREGULARITIES, OPERATION OF THE DEVICE SHOULD BE DISCONTINUED IMMEDIATELY AND REPAIRS MADE BEFORE FURTHER OPERATION OF THE DEVICE. ALL IRREGULARITIES MUST BE REMOVED AND REWELDED.

IT IS RECOMMENDED ALL REPAIR WORK BE DONE BY A QUALIFIED FACILITY KNOWLEDGABLE IN A.W.S. — A.S.M.E STANDARDS.

NOTE! IF WELD CRACKING HAS PROGRESSED INTO SPINDLE, THE SPINDLE MUST BE REPLACED DO NOT ATTI-MPT WELDING.



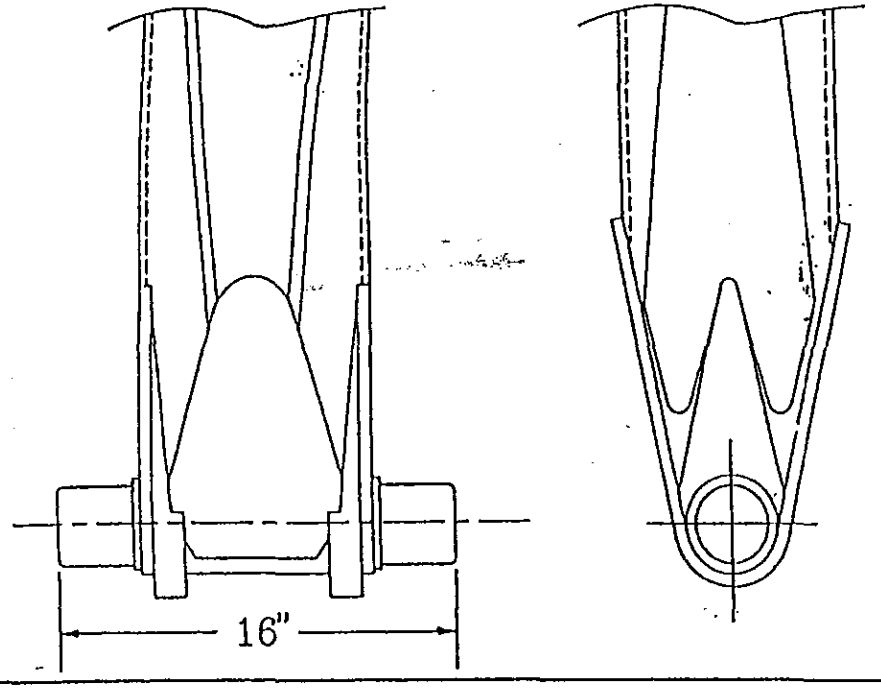
NOTE! THIS BULLETIN SHOULD BE KEPT WITH ALL PERTINENT RIDE DOCUMENTS

Dwg. No. 0-50-86

Eccentric Crank Bulletin

DRAWN BY: | SCALE: | NO. REQ'D.: | MATERIAL: | SPEC. NO.: | SPEC. BY NO.:

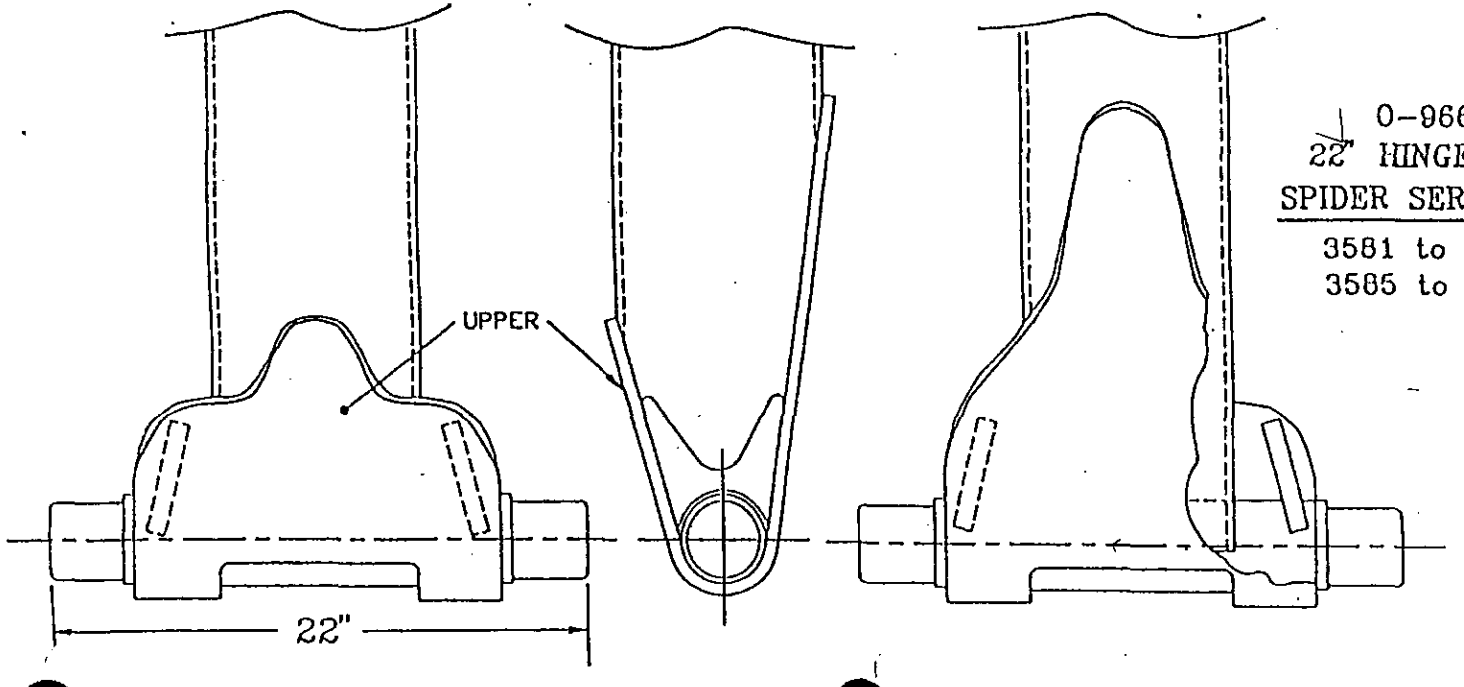
DATE: | NEXT ASSY.:



0-619
16" HINGE PIN
SPIDER SERIAL #'s

2748	2756
2750	2758
2751	2759
2752	2761
2753	2763
2755	

3500 to 3580
3584



0-966
22" HINGE PIN
SPIDER SERIAL #'s

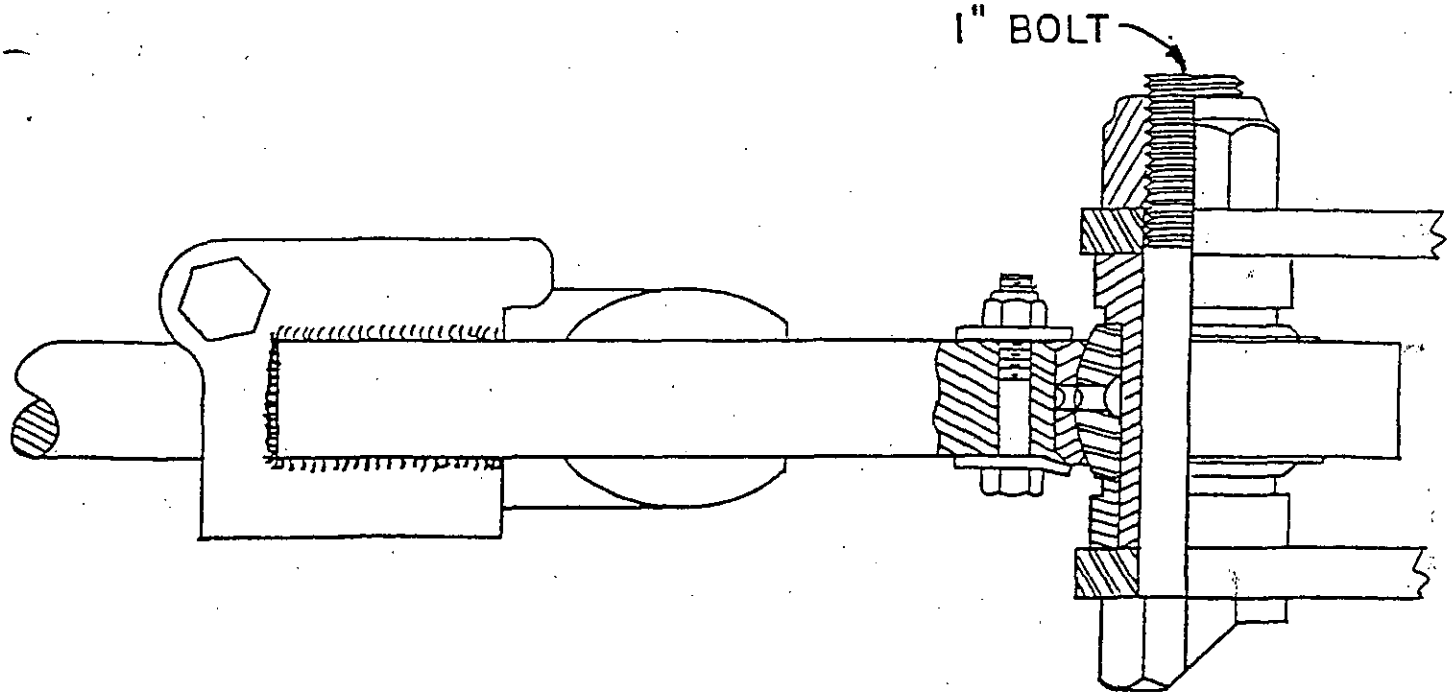
3581 to 3583
3585 to 3609

SPIDER SWEEP IDENTIFICATION

DRG. NO. 2-90-2

DATE 2-14-90
SCALE NONE
DWN BY JPM
SDS NO
SDD BY

JV INDUSTRIES INC.



IT IS VERY IMPORTANT THAT THE ONE INCH BOLT PASSING THROUGH THE BALL JOINT SUPPORT ROD ENDS BE KEPT TIGHT.

ANY LOOSNESS HERE CAN ALLOW THE ASSEMBLY TO TURN ON THE BOLT, CAUSING IT TO WEAR THROUGH IN A SHORT TIME.

WE SUGGEST A DRY TIGHTENING TORQUE OF 600 FT.—LB. OR 200 LB. ON THE END OF A 3FT. WRENCH, OR THE EQUIVALENT.

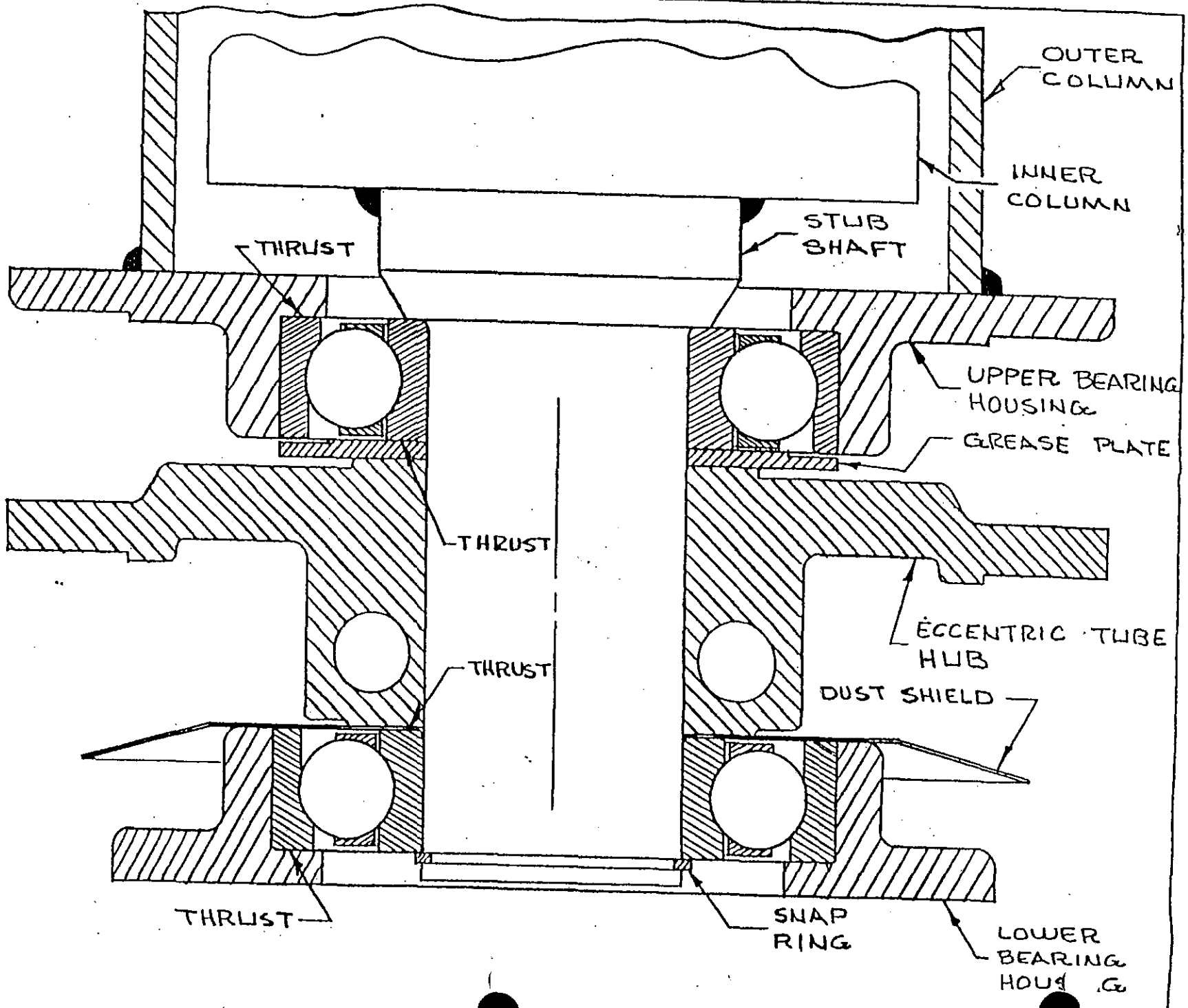
THIS SHOULD BE CHECKED AFTER THE FIRST DAY OF OPERATION AND AGAIN AFTER OPERATING FOR A WEEK.

THESE INSTRUCTIONS PERTAIN TO BOTH ENDS OF THE SWEEP SUPPORT RODS.

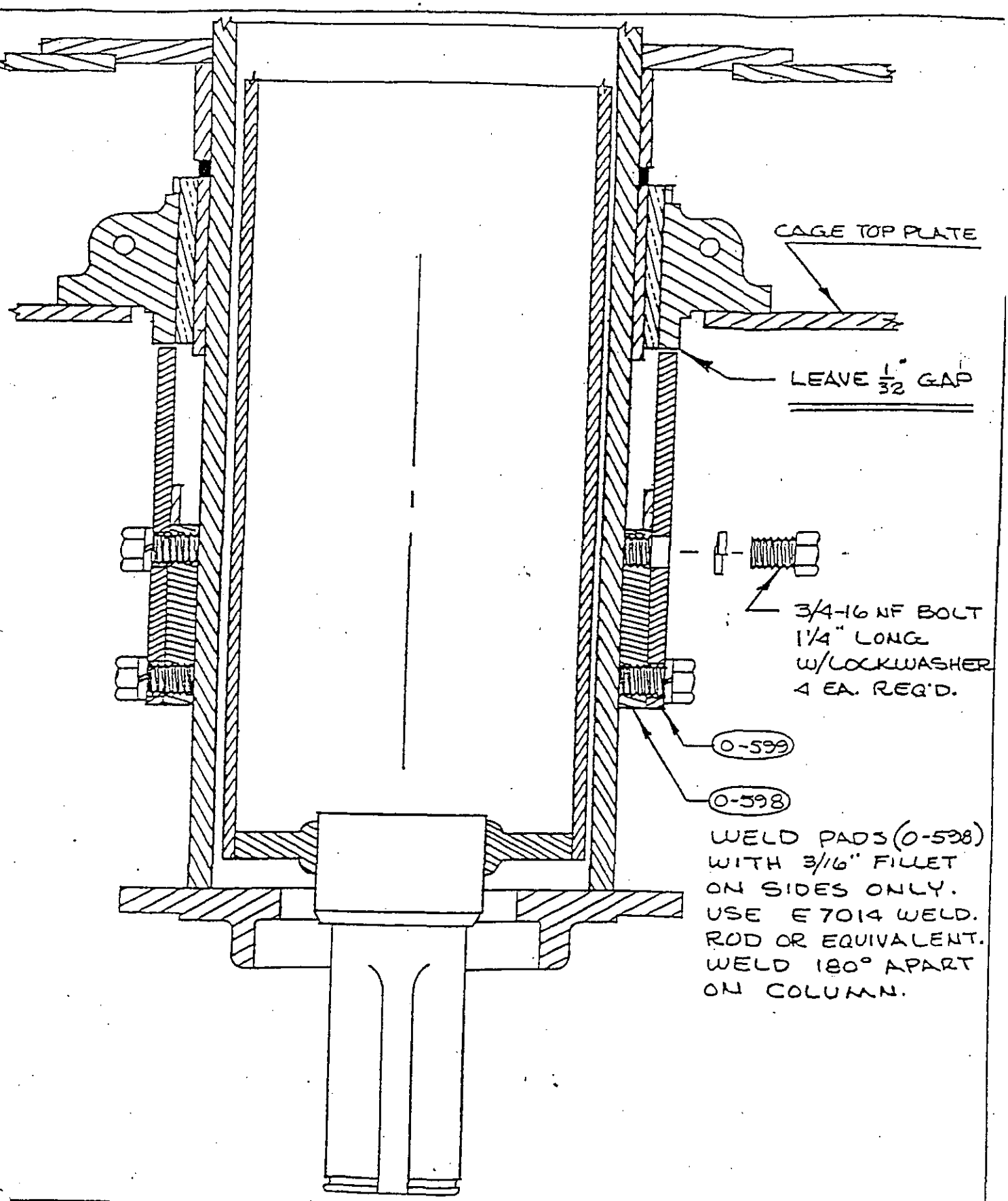
MONO BALL SUPPORT ROD BOLT BULLETIN				
DRAWN BY: NEA	SCALE: NONE	NO. REQ'D.: ~	MATERIAL: ~	Drg. No. BULLETIN 0-20
DATE: 8-19-74	NEXT ASSY.: ~	SOS. NO.: ~		
		SDD. BY NO.: ~		

LOWER BEARING ASSY.

DRAWN BY: MEA	SCALE: 1/2" = 1"	NO. REQ'D.: ~	MATERIAL: AS NOTED
DATE: 7-7-69	NEXT ASSY.: ~	SDS. NO.:	EFF. W/SN:
		SOD. BY NO.:	EFF. W/SN:



Dwg. No. O-25



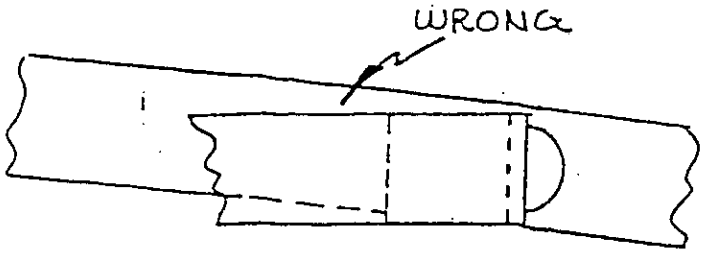
COLUMN RETAINING BAR INSTALLATION

DRAWN BY:	SCALE:	NO. REQ'D.:	MATERIAL:
KFA	NONE	—	AS SHOWN

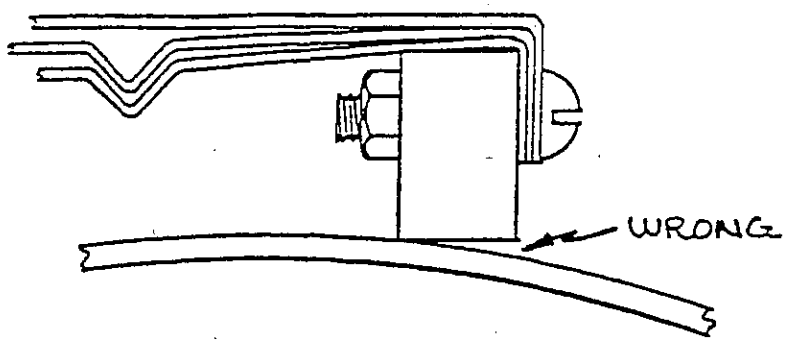
DATE:	NEXT ASSY.:	SDS. NO.:	EFF. W/SN:
8-30-73	—	SDD. BY NO.:	EFF. W/SN:

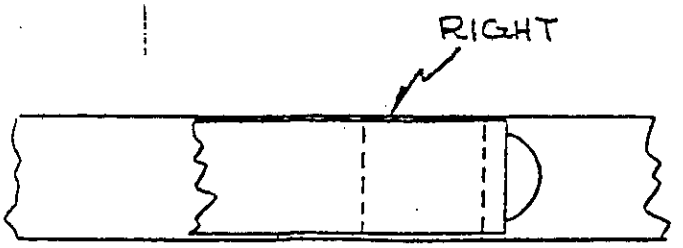
Everett Aircraft Co. Dallas, Inc.

Drg. No. 0-30



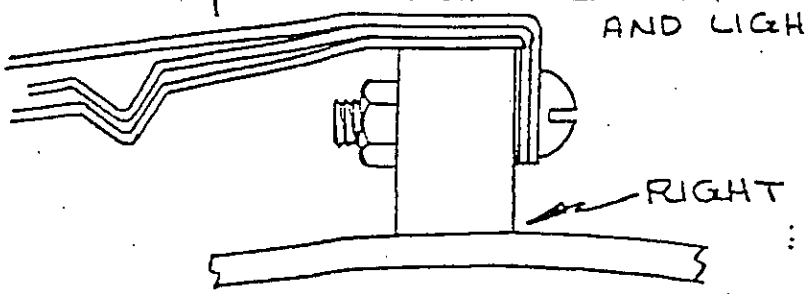
MISALIGNMENT WILL SHORTEN LIFE OF BRUSH PADS.





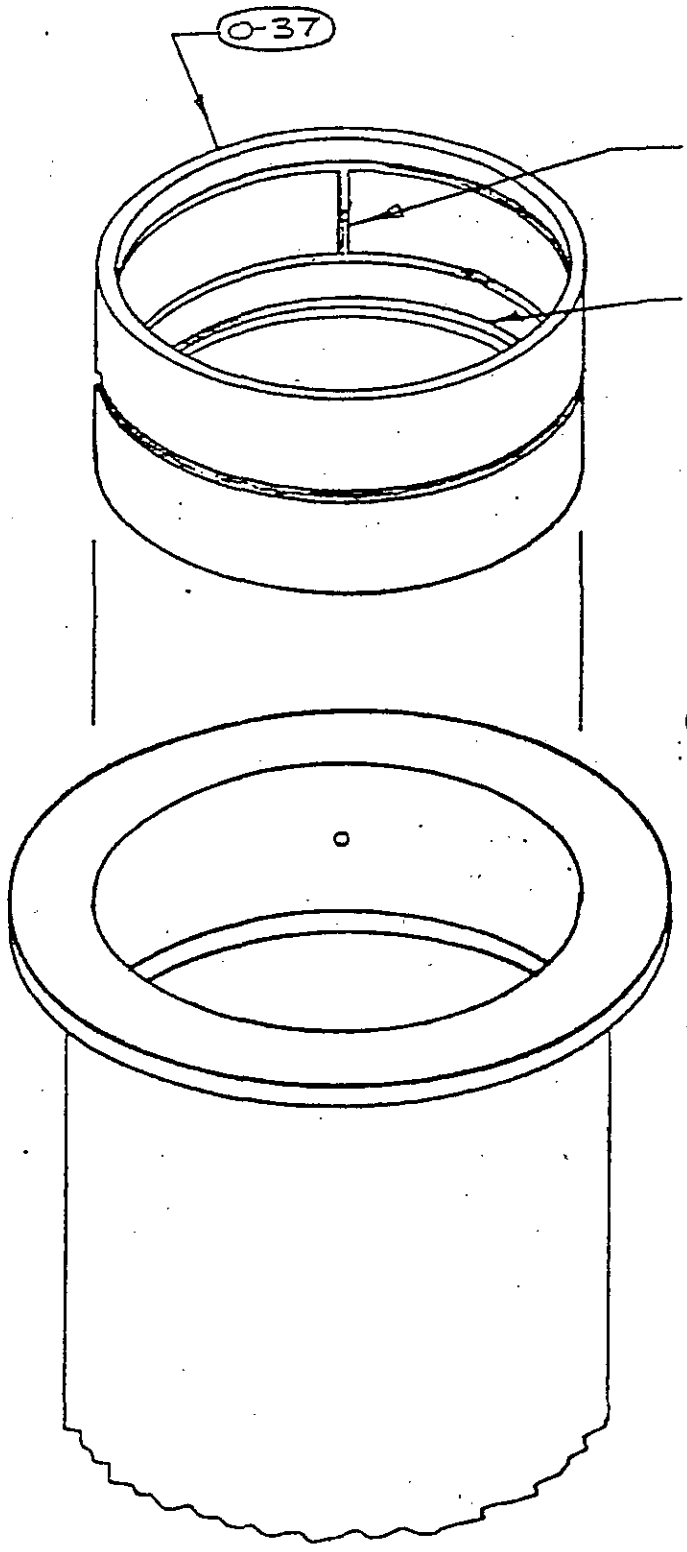
BRUSH PADS MUST BE PARALLEL WITH LIGHT RI[illegible] CORRECT BY ELONGATING MOUNTING HOLES IN BRUSH INSULATING BLOCK WITH RATTAIL FILE.

BEND IN THIS AREA WITH PLIERS TO ASSURE CORRECT SEATING OF PAD ON LIGHT RING. FURTHER SEATING CAN BE ACCOMPLISHED BY USING EMORY PAPER BETWEEN PAD AND LIGHT RING.



BRUSHES SHOULD BE INSPECTED REGULARLY FOR WEAR. EXCESSIVE WEAR WILL CAUSE ARCING IF METAL SPRING TOUCHES LIGHT RING LIGHT RING COULD BE DAMAGED BEYOND REPAIR

CONTACT ALIGNMENT BULLETIN				
DRAWN BY: NEA	SCALE: ~	NO. REQ'D.: ~	MATERIAL: ~	
DATE: 1-30-76	NEXT ASSY.: ~	SOS. NO.:	SOO. BY NO.:	Drg. No. 0-38-76



(1) AFTER REMOVING OLD BUSHING, CLEAN COLUMN BORE; REMOVE ANY SCORE MARKS; OIL BORE SURFACE.

(2) ALIGN VERTICAL GREASE GROOVES WITH EXISTING GREASE FITTING HOLE.

(3) GREASE RETAINER RING MUST BE INSTALLED TOWARD BOTTOM OF COLUMN.

(4) START BUSHING IN BORE BY TAPPING WITH HAMMER WHILE PROTECTING BUSHING SURFACE WITH HARDWOOD BLOCK - CHECK FOR ALIGNMENT CORRECT IF NECESSARY.

(5) USING A 1" ROD ABOUT 92" LONG WITH 12" OF USABLE THREAD AND CENTRALLY DRILLED 1½" X 4" X 13" LONG CROSS BARS ON EACH END TIGHTEN NUT TO PULL BUSHING TO FULL DEPTH OF BORE.

(6) DRILL HOLE THRU BUSHING FOR GREASE PASSAGE AT ZERK HOLE.

OCTOPUS COLUMN BUSHING INSTALLATION

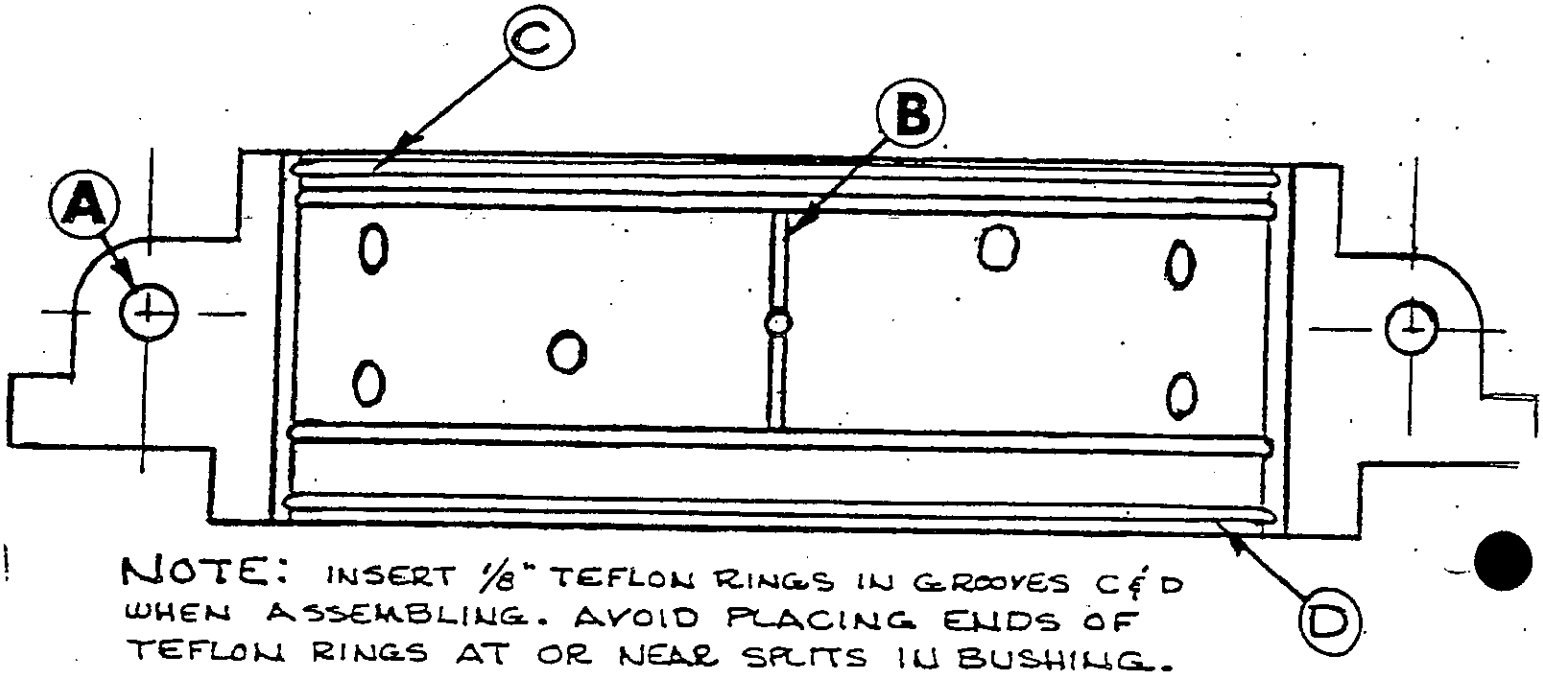
DRAWN BY:	SCALE:	NO. REQ'D.:	MATERIAL:
AEA	NONE	—	AS SHOWN

DATE:	NEXT ASSY.:	SDS. NO.:	EFF. W/SN:
5-19-71	—	SOD. BY NO.:	EFF. W/SN:

CYCLONE

Drg. No. O-24-71

INSTRUCTIONS FOR INSTALLING THE SPLIT HUB BUSHING



NOTE: INSERT 1/8" TEFLON RINGS IN GROOVES C & D WHEN ASSEMBLING. AVOID PLACING ENDS OF TEFLON RINGS AT OR NEAR SPLITS IN BUSHING.

(1) Remove the old bushing by cutting the ends from the rivets on the outside. Then punch them out with a 3/16" punch.

(2) With the bolts "A" loose slide the new bushing into the housing with the grease grooves located as shown. BE SURE TO LOCATE THE VERTICAL GROOVE "B" OVER THE GREASE FITTING.

(3) Tighten the bolts.

(4) Drill the rivet holes through the bushing with a 1/4" drill and countersink for the head so it is just below the surface.

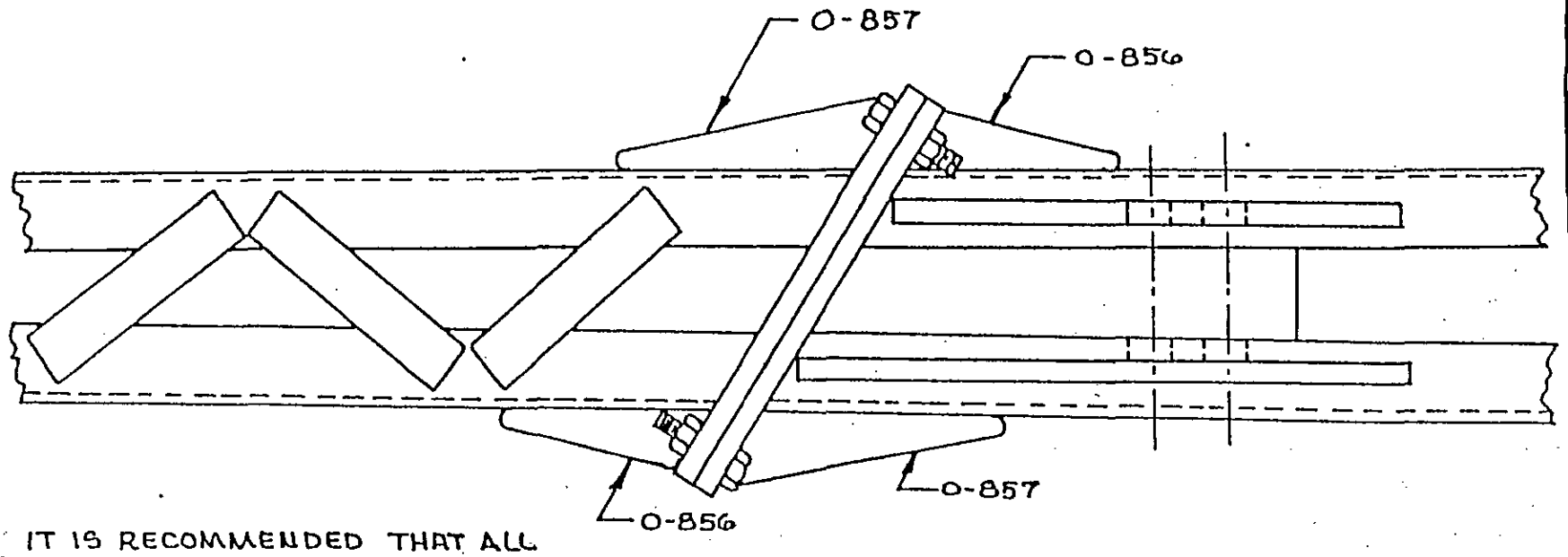
(5) The riveting can be done by clamping a sho steel bar in a vertical position in a vise a hanging the split hub over it so the bar bac up the rivet head. A light hammer is be for riveting.

(6) Drill an 11/32" hole through the grease fi ting hole.

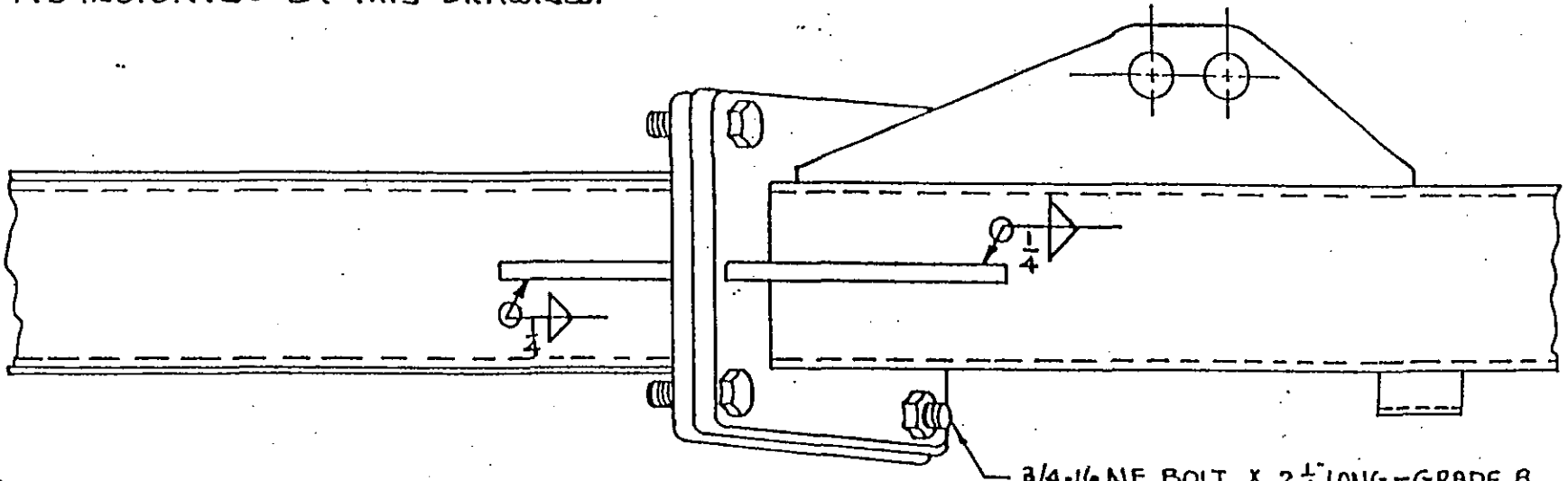
(7) Saw the bushing in half adjacent to the par ing lines of the casting and remove any bur with a file.

REINFORCEMENT FOR OCTOPUS OUTER ARM

DRAWN BY: NEAL	SCALE: NONE	NO. REQ'D.: ~	MATERIAL: AS SHOWN
DATE: 5-8-78	NEXT ASSY.: ~	SDS. NO.: BULLETIN O-6	
		SOD. BY NO.: ~	



IT IS RECOMMENDED THAT ALL OCTOPUS SWEEPS BE REINFORCED AS INDICATED BY THIS DRAWING.

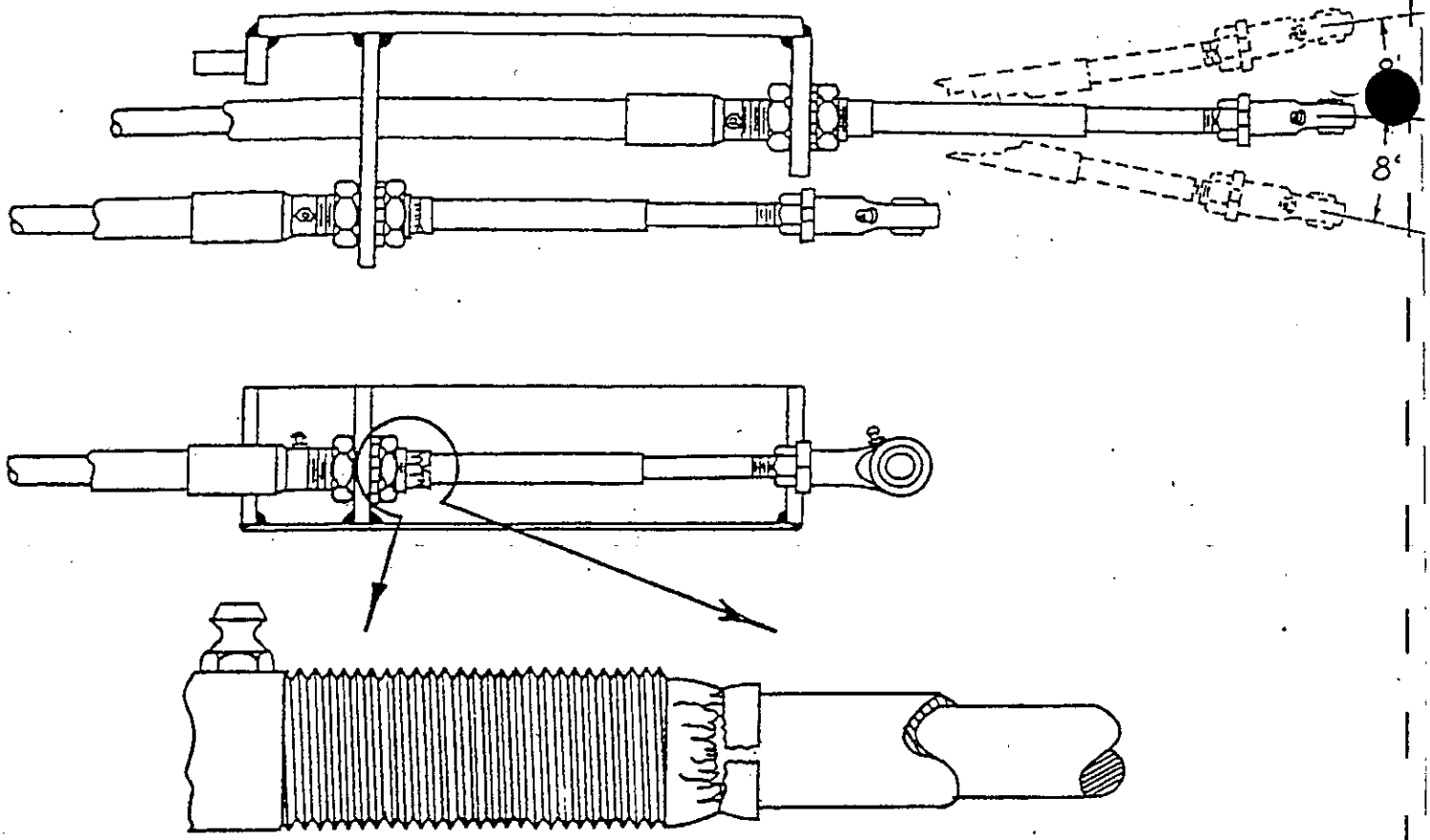


3/4-16 NF BOLT X 2 1/4" LONG-GRADE 8.
3/4-16 NF HEX NUT - GRADE 8.
4 EACH REQ'D PER SWEEP.

OUTER ARM & SWEEP TO BE BOLTED TOGETHER WHEN WELDING.

Gilson

Drg. No. O-44-78



FAILURES IN FLEXIBLE CONTROL CABLES

Some operators have swiveled the control cable rods beyond the recommended maximum 8° angle when removing from the clutch and brake control levers. Too much cable travel between "brake on" and "clutch engaged" will also exceed the recommended maximum 8° angle at the control stand. Either condition will result in failure at the cable swivel joint.

Please examine your cables for failures and notify us of the type of failure, short or long cable, and which end. Damaged cables should be replaced although they will still operate if the stroke is maintained within the 4" limit.

Kits to eliminate failures will soon be available.

FAILURES IN FLEXIBLE CONTROL CABLES				
DRAWN BY: Neal	SCALE: none	NO. REQ'D.: - -	MATERIAL: - - -	Everly AIRCRAFT CO. SALINA, KAN.
DATE: 8/25/69	NEXT ASSY.: - - - -	SDS. NO.:	EFF. W/SN:	Drg. No. 0-19/69
		SDD. BY NO.:	EFF. W/SN:	

ORI

OREGON RIDES INC.

MEMBER

OCTOPUS / SPIDER CHECKLIST

(Device) Name _____ Serial Number _____

INSPECTION DATE _____ INSPECTED BY _____

Please refer to the proper factory Parts Catalog and Operating Instruction Manual for detailed explanation of Inspection and Maintenance procedures. (Additional copies are available from us) In addition to your routine inspection and maintenance the following items should be checked:

DESCRIPTION	WHAT TO CHECK	OK/ /BY	DATE	NOTES AND REMARKS
1. Sweeps	Cracks and structural damage			Notify O.R.I. if damage or cracks are found.
2. Mudsills				
3. Cage				
4. Sweep Support Rods	Damage, straightness.			If support rods are bent, or damaged, Replace. (See bulletin 0-48-86)
5. Sweep Support Rod Pin Holes & Pin Retainer	Wear.			If pin hole wear exceeds +.0625", replace. If pins rotate, replace retainer to factory specifications.
6. Swivel Blocks & Monoballs	Wear, cracks or damage.			Replace swivel block if wear exceeds +.0625". Replace monoballs if worn or cracked.
7. Swivel Block Pins & Mono-ball fasteners	Wear, damage or cracks.			Replace pins if worn or cracked. Tighten monoball fastener if loose. See bulletin (0-20-74)
8. Safety Cables (SPIDER ONLY)	Stretch, corrosion, broken strands, adjustment, general condition.			Cable should not bear weight of sweep when extended. Attaching points should move freely. If cable dimension from center line of hole to end of thread exceeds 89-1/2" +1/2 -1/4 Replace.

P.O. BOX 13483, SALEM, OR 97309

OFFICE: (503) 760-1511 ; PARTS & SHOP: (503) 588-0984 ; FAX: (503)588-112

DESCRIPTION	WHAT TO CHECK	OK/ /BY	DATE	NOTES AND REMARKS
. Safety Cable Link	Twist or damage			If twisted, (cable has been stretched). Replace. Check cable length. ?
10. All Fasteners	Tightness and general condition			If movement is detected or bolts are damaged, replace with factory specified bolts.
1. Pillow Block & Hinge Pins	Looseness and structural damage			If bushing turns in pillow block when tight or block is damaged, or if block hinge is loose to excess, check with ORI for replacement procedure.
2. All Pins & Safeties	Looseness, proper safeties.			Replace if worn, or damaged. Make sure proper safeties are used.
. Mudsill & age Pin Holes	Enlarged or damaged.			Ream and replace pins as per factory specifications.
. Eccentric Hub	Play or rough bearing.			Tighten or replace as necessary.
Control Stand	Condition of ratchet & ratchet lug.			If handle will no longer lock in place, grind lug or replace with new handle. Ratchet quadrant cannot be ground. Replace.
. Countershaft Assembly	Loose or bad bearings, worn collars, worn shifter yokes, clutch lining, release springs, rollers, roller lever & clutch brake assy.			Adjust or replace as necessary.
Cars	Worn spindle bushing, car latch for positive locking, hinges & worn or broken tubes. All fasteners.			Replace worn bushings, lubricate. If car latch has excessive movement, replace with new assemblies Contact ORI for proper tubing repair procedures. Repair or replace worn or damaged fasteners.

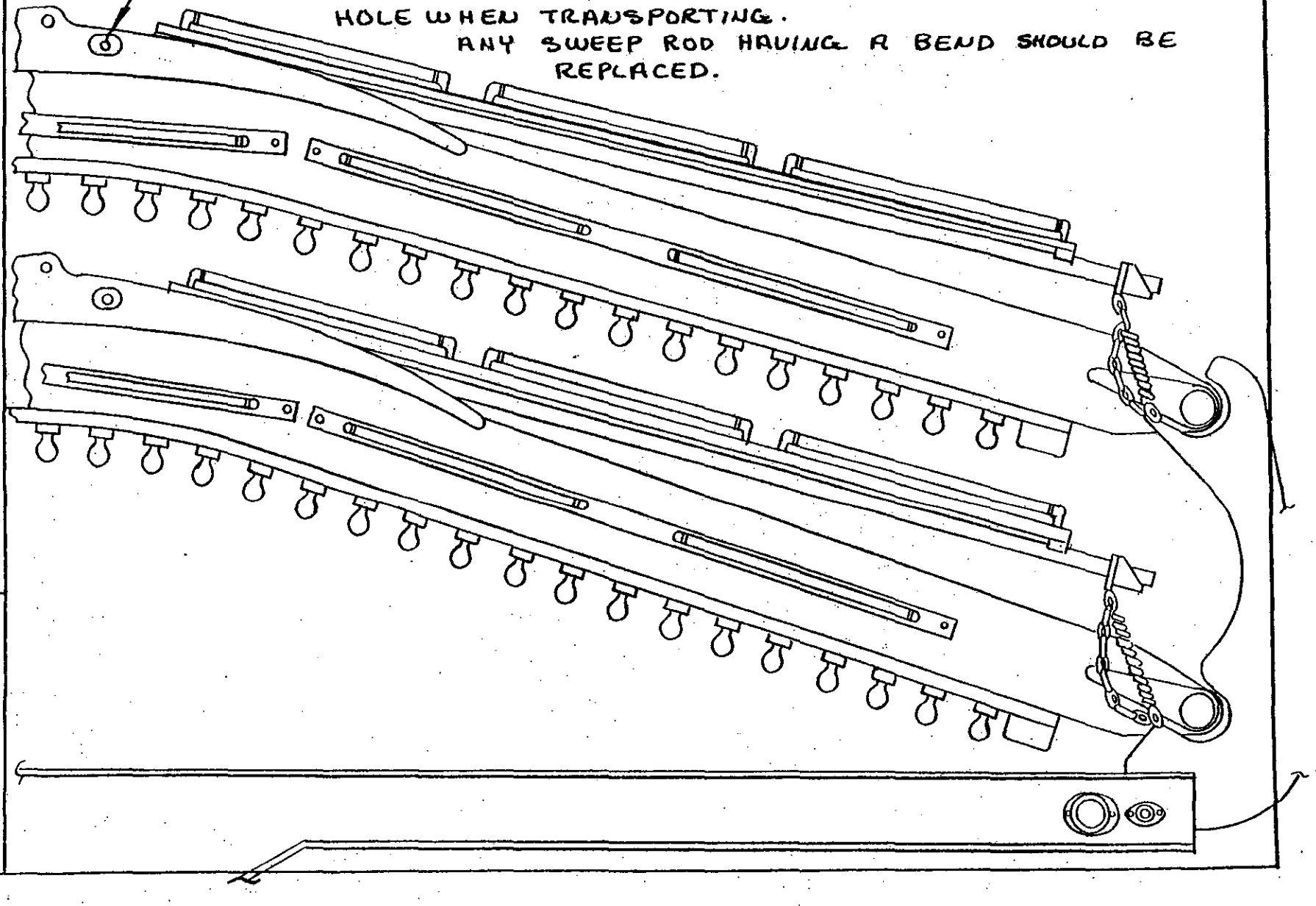
DESCRIPTION	WHAT TO CHECK	OK/ /BY	DATE	NOTES AND REMARKS
18. Cars with Swing out Safety Bar Assy	Cracked or broken safety bar, wear in safety bar bearings. Safety control rods, spring link & missing or broken springs. Loose or missing fasteners, slack in linkages.			Repair or replace damaged safety bars, replace worn or damaged safety bar bearings, control rods, missing or broken springs, tighten or replace loose or missing fasteners. Adjust, repair or replace loose linkages.
19. Mudsill Tie Rods	Straightness, cracking at the head, worn or bad threads, nuts			If any of these conditions exist adversely, replacement is necessary. DO NOT weld on rod, anywhere.
20. Electrical Components	Worn or bad cords, plugs, light rings & brushes.			If worn or unsafe conditions exist repair or replace with correct size & type. Replace brushes or rings if damaged or worn excessively.
21. Gear Drive Units	Loose pinion nuts, faulty seals, loose lower bearings and lubrication.			Tighten pinion nuts, replace faulty seals, & bearings. Clean & replace lubricant.
22. Eccentric	Lateral movement of eccentric tube, cracks or structural damage.			If any of these conditions exist, notify ORI for corrective procedures. See bulletin (0-50-86)
23. Split Hub	Looseness			If any looseness, other that chain slack is detected, notify ORI for corrective procedures.
24. Cage Top Bearing (Hinge column)	Lateral movement.			If movement exceeds +.065" bearing should be replaced. Check that bearing housing is tight to cage top plate. Tighten or replace bolts with factory specified type.
25. Chains and Sprockets	Worn sprocket teeth, chain stretch, adjustment, alignment			If chain has been stretched it must be replaced. Loose or excessively tightened chain will result in undo sprocket wear. Badly worn sprockets must be replaced at time of new chain installation.

Note: When ordering parts please give serial number of your machine along with part numbers from the Parts Catalog and Operating Manual.

IT HAS BEEN BROUGHT TO OUR ATTENTION THAT THE O-626 SAFETY CABLE PIN IS BEING LEFT IN THE SWEEP WHEN TRANSPORTING. THIS CAUSES SWEEP RODS TO BEND WHICH CREATES EXCESS STRESSES AT THE EAR WELD ATTACHING POINT CAUSING POSSIBLE FATIQUE FAILURES DURING RIDE OPERATION.

UNDER NO CIRCUMSTANCE SHOULD THIS PIN BE LEFT IN ITS HOLE WHEN TRANSPORTING.

ANY SWEEP ROD HAVING A BEND SHOULD BE REPLACED.



SAFETY CABLE PIN (O-626) TRANSPORTING BULLETIN

DRAWN BY:	SCALE:	NO. REQ'D.:	MATERIAL:
AEA	NONE	~	~

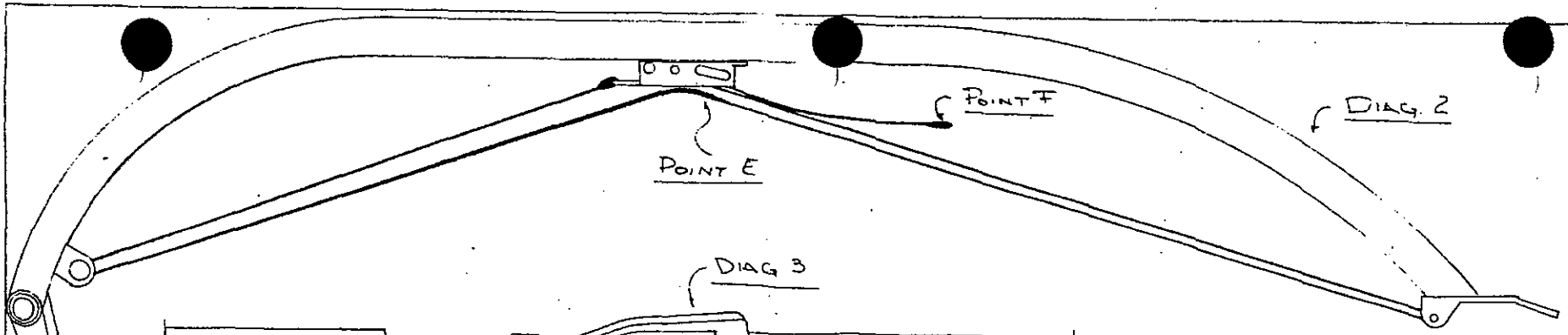
DATE:	NEXT ASSY.:	SDS. NO.:
5-4-76	~	

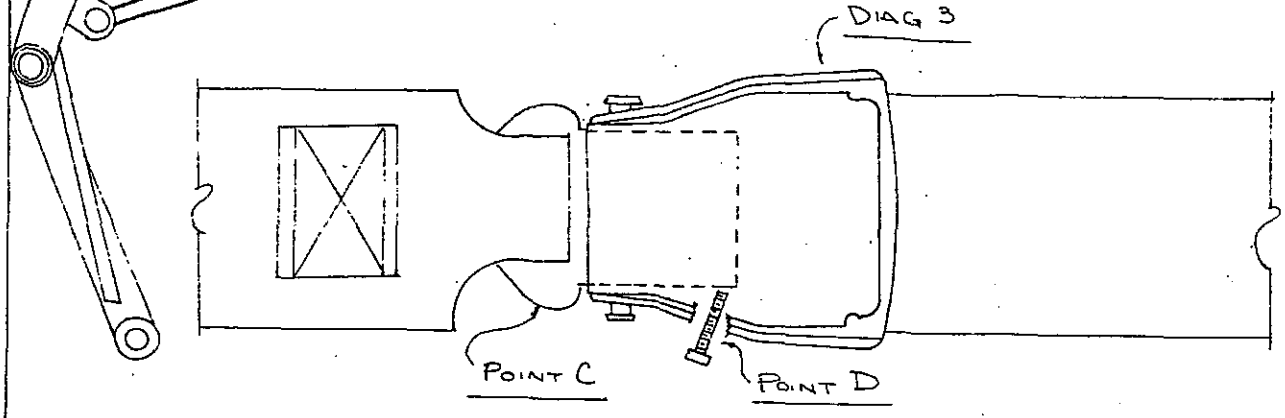
SDD. BY NO.: O-45/10-78

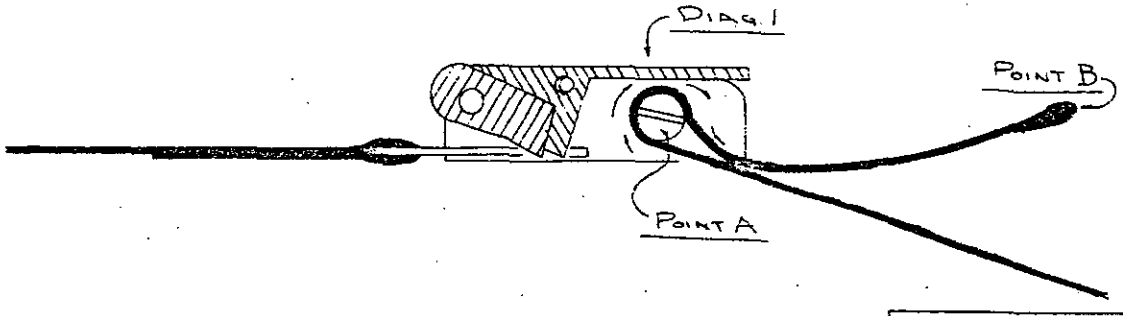
Chance Rides

Drg. No. O-41-76

O-41-76





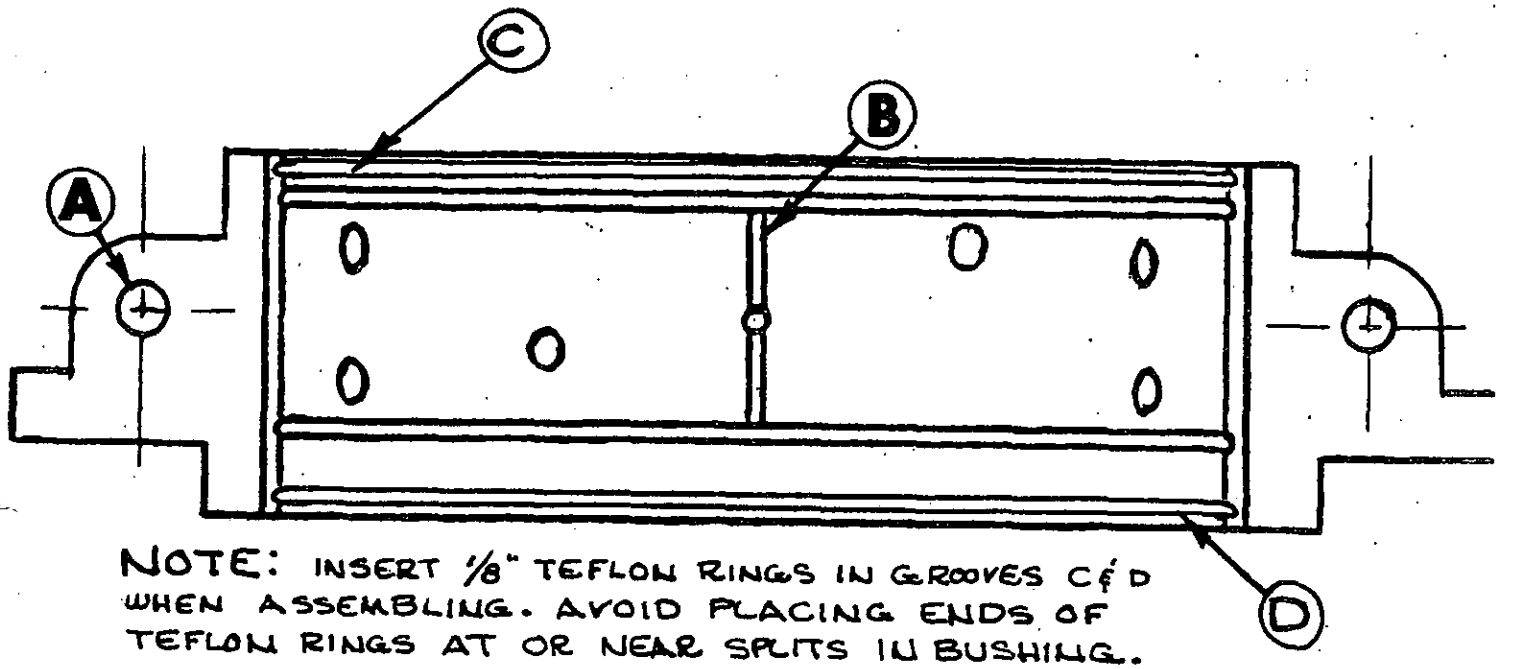


TO INSTALL RESTRAINT BELT ON BELT BAR AS SHOWN

1) REMOVE ADJUSTABLE BELT END FROM BUCKLE BY RELIEVING PRESURE ON BELT ADJUSTING PIN (DIAG. 1 PT. A), FEEDING SEWN END INTO BUCKLE, RELEASING ADJUSTING PIN AND WITHDRAWING BELT.
2) THREAD BELT ONTO BELT BAR AS SHOWN IN DIAG. 2, WITH SEWN END ON THE UPPER SIDE NEAREST THE DOOR.
3) REINSTALL SEWN END OF BELT IN BUCKLE (SEE STEP 1.) NOTE: BELT MUST FEED OUT OF BUCKLE ON TOP OF ITSELF SO THAT FREE END IS BETWEEN SECURED BELT AND BELT BAR, TOWARDS DOOR.
4). CONNECT METAL-TO-METAL BELT CONNECTOR END. NOTE: ALL BELTS SHOULD LIE FLAT WITHOUT TWISTS.
5) INSTALL 8-32 SOCKET HEAD SCREW INTO TAPPED HOLE IN BUCKLE (DIAG. 3, PT. D) AND TIGHTEN NOTE BUCKLE MAY NOT NOW BE SEPARATED FROM BELT.
6) TO TENSION BELT FOR TWO AVERAGE ADULTS HOLD BELTS AND BUCKLE AGAINST BELT BAR AT CENTER, PULL FREE END UNTIL ALL SLACK IS REMOVED.
FOR PASSENGERS COMFORT TIGHTEN BELT TENSION FOR SMALLER PASSENGERS OR SINGLES

RESTRAINT BELT INSTRUCTIONS				
DRAWN BY: TMcQ	SCALE:	NO REQ'D.:	MATERIAL:	Everly
DATE: 8-29-78	NEXT ASSY.:	SDS NO:	EFF. W SN:	Drg. No. W - 7/10-78
		SDD BY NO.:	EFF W SN:	

INSTRUCTIONS FOR INSTALLING THE SPLIT HUB BUSHING



NOTE: INSERT 1/8" TEFLON RINGS IN GROOVES C & D WHEN ASSEMBLING. AVOID PLACING ENDS OF TEFLON RINGS AT OR NEAR SPLITS IN BUSHING.

(1) Remove the old bushing by cutting the ends from the rivets on the outside. Then punch them out with a 3/16" punch.

(2) With the bolts "A" loose slide the new bushing into the housing with the grease grooves located as shown. BE SURE TO LOCATE THE VERTICAL GROOVE "B" OVER THE GREASE FITTING.

(3) Tighten the bolts.

(4) Drill the rivet holes through the bushing with a 1/4" drill and countersink for the head so it is just below the surface.

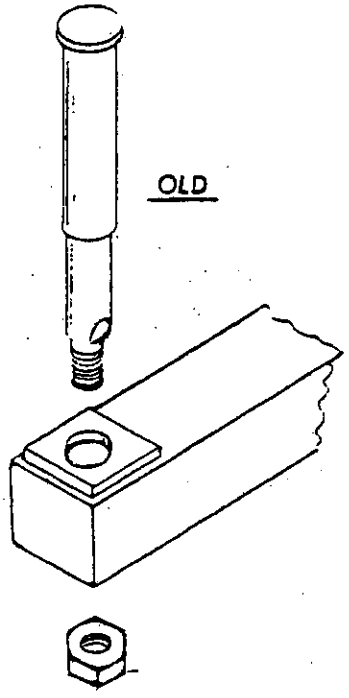
(5) The riveting can be done by clamping a sho steel bar in a vertical position in a vise a hanging the split hub over it so the bar back up the rivet head. A light hammer is be for riveting.

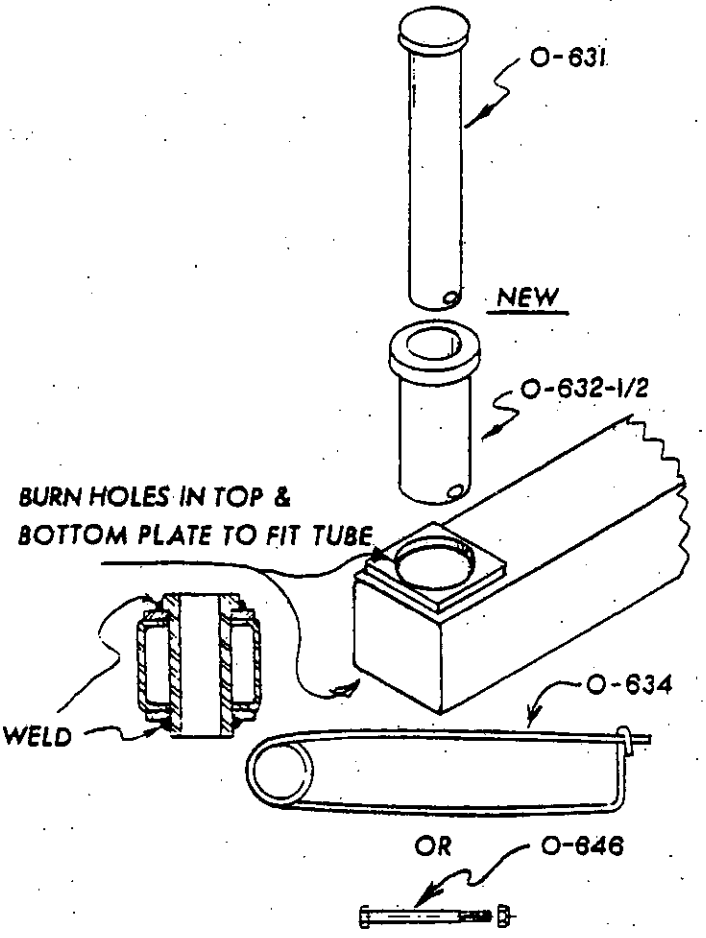
(6) Drill an 11/32" hole through the grease fi ting hole.

(7) Saw the bushing in half adjacent to the par ing lines of the casting and remove any burr with a file.

OCTOPUS CAR SPINDLE

In manufacturing and selling some 385 OCTOPUS devices since 1936 we have repeatedly emphasized the necessity for proper maintenance and operational practices. Like all other fine machinery the high wear and strain points of the OCTOPUS deserve careful attention and in this Bulletin we direct your attention particulary to the OCTOPUS Car Spindles. Poor maintenance and improper operating practices have caused spindle failures and resulting injuries to passengers. We recommend replacement of your Car Spindles and modification of the sweep spindle securing area as illustrated below.





Car Spindle, Part No. O-631 and Car Support Tube, Part No. O-632-1/2 will be furnished at [redacted] per set for one car mounting. In addition, Car Spindle Lock Pin, Part No. O-634 will be furnished at [redacted] each or Car Spindle Lock Bolt and Nut, Part No. O-646 at [redacted] each. See reverse side of this Bulletin for installation instructions. No car modfications are required. Material will be forwarded upon receipt of proper shipping instructions.

Evaluation of each successive seasons experience and tests emphasize the importance of proper operational speed. We believe excessive speed, coupled with the abusive practices of backlash, erratic braking, etc., to be the major factor reducing normal life expectancy of the stress members of this device. Under no circumstances should an OCTOPUS be operated at a speed exceeding 7 revolutions per minute.

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INSTRUCTIONS FOR FIELD CONVERSION TO O-631 CAR SPINDLES

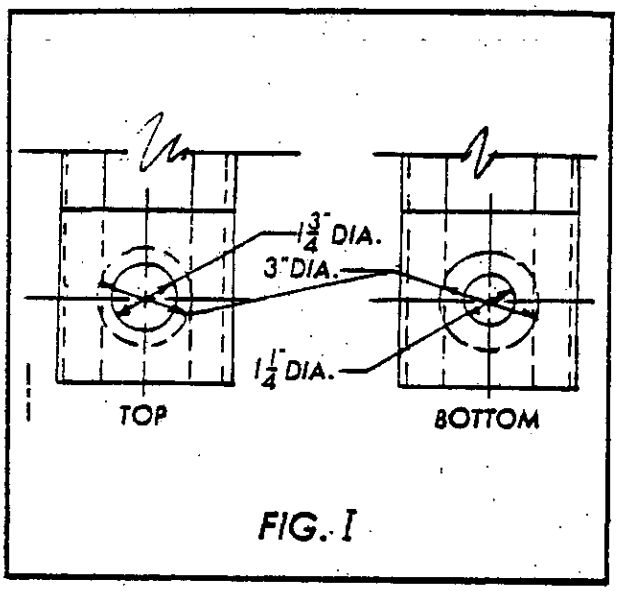

FIG. I

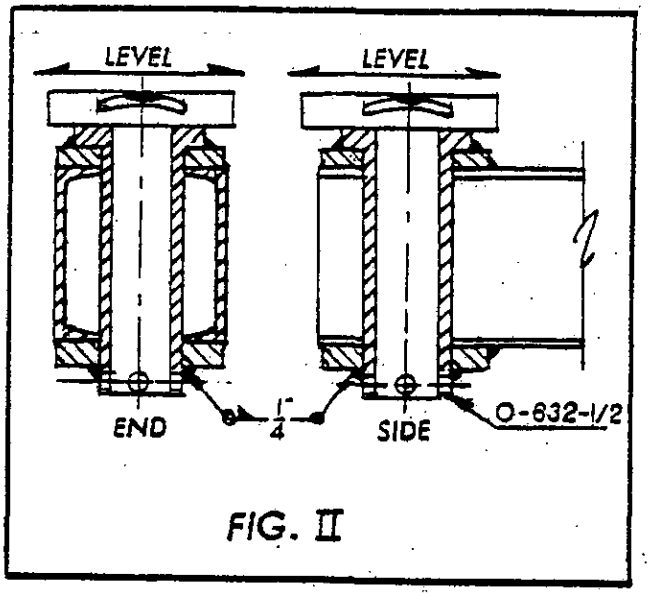

FIG. II

Refering to Fig. 1 above use the reversible marking disc furnished with kit assembly to mark (scribe) 3" diameter circle on each of present upper and lower plates forming present car spindle retention area. The disc has pilots on each side to center in the corresponding size holes top and bottom. Burn out 3" holes top and bottom as marked. Remove all burning slag. Insert the O-632-1/2 Car Support Tube with one set of drilled holes parallel and the other at right angles to the arm per Fig. 11 with the arm level. Level the Support Tube in two directions as shown in Fig. 11. Using ASTM 6013 or equivalent electrodes tack weld the tube at the top in four (4) places on opposite sides. Re-check level and correct if tilted then tack weld the tube at bottom in four (4) places as at the top. Weld the tube permanently with a 1/4" fillet weld all around top and bottom. The tubes are bored .006" oversize before shipment. The anticipated welding shrinkage should reduce this to .004" oversize allowing a slip fit for the spindle. Excessive shrinkage spots can be corrected by filling with a half round file to remove high spots. To prevent rust and corrosion in bore of tube O-632-1/2 coat with heavy grease where frequent removal is occasioned. We recommend a more permanent lubricant such as NEVER SEEZ along with occasional rotation of spindle to alternate set of lock pin holes for permanent or park operation. Lock Pin O-634 is recommended for portable operation and class 5 or better 3/8" X 3-3/4" heat treated bolt with self locking nut recommended for permanent operation.